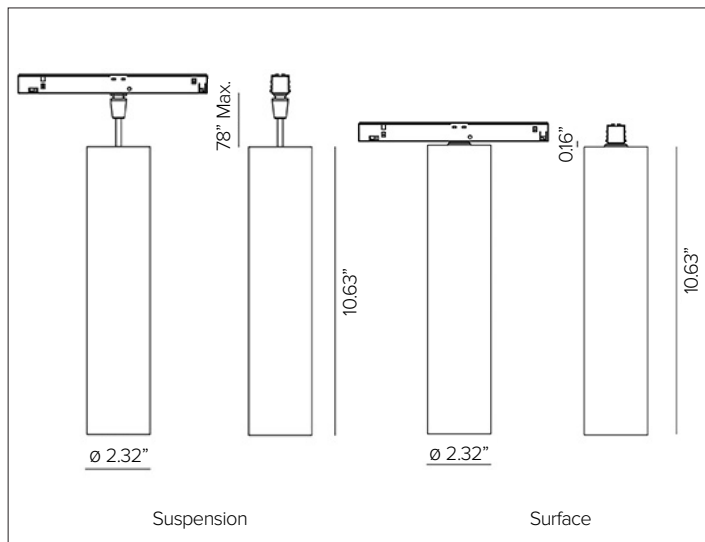


FORTYEIGHT LABEL 6 TUBE

Low Voltage LED Track Fixture



Surface version (left), Suspended version (right), Deep Black finish shown.



CONCEPT

Professional Low voltage LED fixture for direct lighting.

MECHANICAL CHARACTERISTICS

Dimensions	10.63"L x 2.32" Dia.
Materials	Powder coated cylindrical machined aluminum body.
Finish	<input type="radio"/> Plaster White <input checked="" type="radio"/> Deep Black
Power Connection	To be completed with FORTYEIGHT MULTISYSTEM low voltage polarized track. Not 'Hot Swap' capable. Power to the track must be turned off for removal, replacement, or movement of the fixture.
Functionality	Tool-less installation, utilizing a mechanical fixture system that mounts to FORTYEIGHT MULTISYSTEM track system. NOTE: Max of 4 connectors or 30ft of track per individual 96W power supply and/or 90W. Can be used in combination with FORTYEIGHT fixture range to maximum of 90W per 96W, 48V driver.
Mounting	FORTYEIGHT MULTISYSTEM track system, sold separately. Surface version NOT compatible with FORTYEIGHT RECESSED DEEP TRIMLESS track. Suspension is complete with 78"L multicore cable with length adjustment system, colored fabric cable supplied to match fixture color.
Weight	1.54lbs
Protection	IP20

CERTIFICATIONS

cULus Class 2 SELV Listed.
Tested in accordance with LM-79-08.
Compliant for California installations
RoHS3 EU 215/863

WARRANTY

5 year limited warranty.

SUSTAINABILITY

Luminaire designed for disposal/recycling at end-of-life. Replaceable LED light source and control gear by a Targetti technician.

ELECTRICAL CHARACTERISTICS

Power Supply	Remote 48V driver required, refer to FORTYEIGHT MULTISYSTEM track spec sheet.
Wattage	9W
Voltage	48V
Control	0-10V to 1% or DALI / Wireless Bluetooth Casambi to 0% Note: Control cable wired directly to track from dimming interface, not through remote driver. 0-10V group fixture control. For individual fixture control DALI or wireless DALI/Casambi. For wireless bluetooth control via Casambi, use DALI fixture in combination with APP1-M-C0-9519 wireless control interface, refer to FORTYEIGHT MULTISYSTEM track specification sheet for detailed information.

SOURCE

High efficiency LED Chip on Board.

TM30	CCT (Nominal)	CRI	Rf	Rg	SDCM
	2700K	90	92	99	1.5
	3000K	90	92	101	1.5
	4000K	90	90	98	1.5

OPTIC

Optical system is dependent on beam angle. SP / FL versions comprised of metalized polycarbonate precision optics with opaque black silicone cut off ring. MWFL version comprised of convex faceted highly reflective anodized aluminum precision optic with opaque black silicone cut off ring.

Beam	SP 16°	FL 35°	MWFL 45°
Delivered Lumens	2700K 843Lm 3000K 878Lm 4000K 892Lm	841Lm 876Lm 889Lm	854Lm 889Lm 903Lm
<i>Refer to photometry section for all fixture variations.</i> <i>For 3500K lumen values use multiplier of 1.02 from 3000K.</i>			
Efficacy	98 Lm/W max. Refer to photometric graphs for specific values.		
Lifetime	L90/B10 >50,000hrs at max TA +25°C		
Photobiological Classification	Low risk photobiological safety RG1		

FORTYEIGHT LABEL 6 TUBE

SPECIFICATION INFORMATION

48	LA	6							/
1	2	3	4	5	6	7	8	9	10

Ex: 48LA6SU10L1SP30PW

REQUIRED

1 - PRODUCT CODE	2 - TYPE	3 - SIZE	4 - TYPE	5 - CONTROL	6 - WATTAGE	7 - OPTICS	8 - KELVIN	9 - FINISH
48 — FORTYEIGHT	LA — LABEL	6 — 2.32" Dia.	SF ^B — Surface SU — Suspended	10 — 0-10V DA ^A — DALI/Wireless Casambi	L1 — 9W	SP — SP 16° FL — FL 35° MW — MWFL 45°	27 — 2700K 30 — 3000K 35 — 3500K 40 — 4000K	PW — Plaster White DB — Deep Black

10 - TRACK

REQUIRED

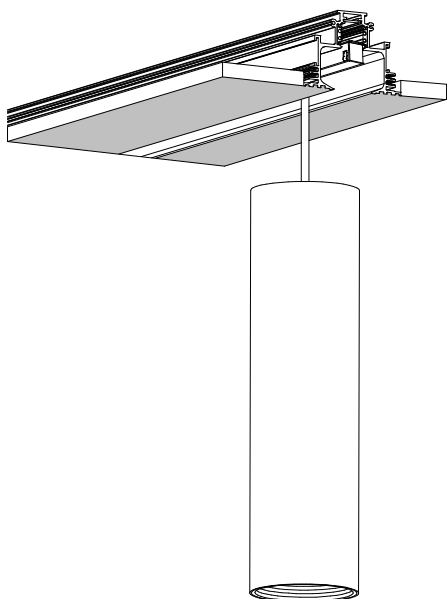
To be completed with **FORTYEIGHT MULTISYSTEM TRACK** [RECESSED TRIMLESS DEEP](#) or [SURFACE / SUSPENSION](#)

^A For wireless bluetooth control via Casambi, use DALI fixture in combination with APPI-M-C0-9519 wireless control interface.

^B Not compatible with Recessed Deep Trimless Track.

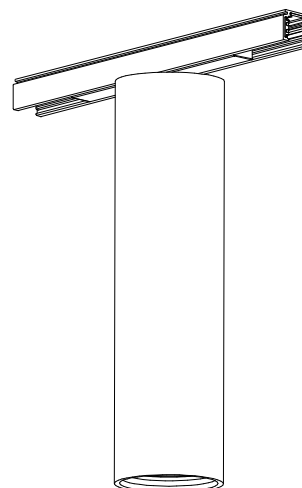
MOUNTING COMPATIBILITY

[FORTYEIGHT RECESSED TRIMLESS DEEP TRACK](#) shown with FORTYEIGHT LABEL 6 TUBE (SU) SUSPENSION fixture version.



[FORTYEIGHT MULTISYSTEM SURFACE/SUSPENSION TRACK](#) shown with FORTYEIGHT LABEL 6 TUBE (SF) SURFACE fixture version.

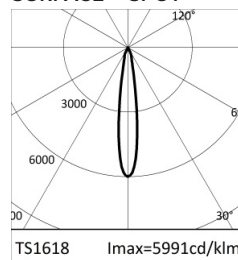
NOTE: (SF) Surface fixture version NOT compatible with FORTYEIGHT RECESSED TRIMLESS DEEP TRACK.



FORTYEIGHT LABEL 6 TUBE

PHOTOMETRY

SURFACE – SPOT



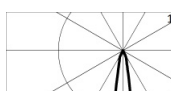
	2700K	H(m)	D(m)	E _{max} (lx)		
	Ra90		16°			
Fixture Power	9W	1	0.28	6853		
Source Flux	1144lm	2	0.55	1713		
Fixture Flux	840lm	3	0.83	761		
Efficacy	91lm/W	4	1.11	428		
TS1618	I _{max} =5991cd/klm	I _{max}	6853cd	5	1.39	274

Maximum UGR = 0.5 (based on actual lumens)



	3000K	H(m)	D(m)	E _{max} (lx)		
	Ra90		16°			
Fixture Power	9W	1	0.28	7135		
Source Flux	1191lm	2	0.55	1784		
Fixture Flux	874lm	3	0.83	793		
Efficacy	95lm/W	4	1.11	446		
TS1618	I _{max} =5991cd/klm	I _{max}	7135cd	5	1.39	285


Maximum UGR = 0.6 (based on actual lumens)



	4000K	H(m)	D(m)	E _{max} (lx)		
	Ra90		16°			
Fixture Power	9W	1	0.28	7249		
Source Flux	1210lm	2	0.55	1812		
Fixture Flux	888lm	3	0.83	805		
Efficacy	97lm/W	4	1.11	453		
TS1618	I _{max} =5991cd/klm	I _{max}	7249cd	5	1.39	290

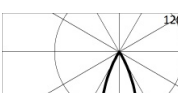
Maximum UGR = 0.7 (based on actual lumens)

SURFACE – FLOOD



	2700K	H(m)	D(m)	E _{max} (lx)		
	Ra90		35°			
Fixture Power	9W	1	0.63	2241		
Source Flux	1144lm	2	1.26	560		
Fixture Flux	837lm	3	1.89	249		
Efficacy	91lm/W	4	2.51	140		
TS1619	I _{max} =1959cd/klm	I _{max}	2241cd	5	3.14	90

Maximum UGR = 1.9 (based on actual lumens)



	3000K	H(m)	D(m)	E _{max} (lx)		
	Ra90		35°			
Fixture Power	9W	1	0.63	2333		
Source Flux	1191lm	2	1.26	583		
Fixture Flux	872lm	3	1.89	259		
Efficacy	95lm/W	4	2.51	146		
TS1619	I _{max} =1959cd/klm	I _{max}	2333cd	5	3.14	93

Maximum UGR = 2.0 (based on actual lumens)



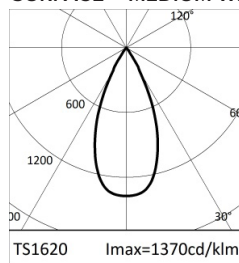
	4000K	H(m)	D(m)	E _{max} (lx)		
	Ra90		35°			
Fixture Power	9W	1	0.63	2371		
Source Flux	1210lm	2	1.26	593		
Fixture Flux	886lm	3	1.89	263		
Efficacy	96lm/W	4	2.51	148		
TS1619	I _{max} =1959cd/klm	I _{max}	2371cd	5	3.14	95

Maximum UGR = 2.1 (based on actual lumens)

FORTYEIGHT LABEL 6 TUBE

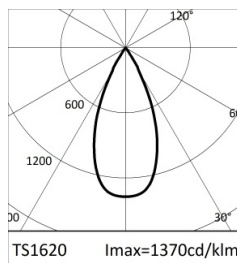
PHOTOMETRY

SURFACE – MEDIUM WIDE FLOOD



	2700K	H(m)	D(m)	Emax(lx)
	Ra90		45°	
	Fixture Power	9W	1	0.84
	Source Flux	1144lm	2	1.68
	Fixture Flux	850lm	3	2.52
	Efficacy	92lm/W	4	3.35
TS1620	Imax=1370cd/klm	Imax	1567cd	5

Maximum UGR = 2.8 (based on actual lumens)



	3000K	H(m)	D(m)	Emax(lx)
	Ra90		45°	
	Fixture Power	9W	1	0.84
	Source Flux	1191lm	2	1.68
	Fixture Flux	885lm	3	2.52
	Efficacy	96lm/W	4	3.35
TS1620	Imax=1370cd/klm	Imax	1631cd	5

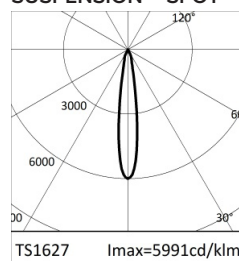
Maximum UGR = 2.9 (based on actual lumens)



	4000K	H(m)	D(m)	Emax(lx)
	Ra90		45°	
	Fixture Power	9W	1	0.84
	Source Flux	1210lm	2	1.68
	Fixture Flux	899lm	3	2.52
	Efficacy	98lm/W	4	3.35
TS1620	Imax=1370cd/klm	Imax	1657cd	5

Maximum UGR = 3.0 (based on actual lumens)

SUSPENSION – SPOT



	2700K	H(m)	D(m)	Emax(lx)
	Ra90		16°	
	Fixture Power	9W	1	0.28
	Source Flux	1149lm	2	0.55
	Fixture Flux	843lm	3	0.83
	Efficacy	92lm/W	4	1.11
TS1627	Imax=5991cd/klm	Imax	6883cd	5

Maximum UGR = 0.5 (based on actual lumens)



	3000K	H(m)	D(m)	Emax(lx)
	Ra90		16°	
	Fixture Power	9W	1	0.28
	Source Flux	1196lm	2	0.55
	Fixture Flux	878lm	3	0.83
	Efficacy	95lm/W	4	1.11
TS1627	Imax=5991cd/klm	Imax	7165cd	5

Maximum UGR = 0.6 (based on actual lumens)



	4000K	H(m)	D(m)	Emax(lx)
	Ra90		16°	
	Fixture Power	9W	1	0.28
	Source Flux	1215lm	2	0.55
	Fixture Flux	892lm	3	0.83
	Efficacy	97lm/W	4	1.11
TS1627	Imax=5991cd/klm	Imax	7278cd	5

Maximum UGR = 0.7 (based on actual lumens)

FORTYEIGHT LABEL 6 TUBE

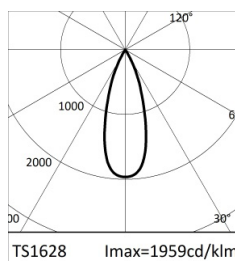
PHOTOMETRY

SUSPENSION – FLOOD



	2700K	H(m)	D(m)	Emax(lx)		
	Ra90		35°			
Fixture Power	9W	1	0.63	2251		
Source Flux	1149lm	2	1.26	563		
Fixture Flux	841lm	3	1.89	250		
Efficacy	91lm/W	4	2.51	141		
TS1628	Imax=1959cd/klm	Imax	2251cd	5	3.14	90

Maximum UGR = 1.9 (based on actual lumens)



	3000K	H(m)	D(m)	Emax(lx)		
	Ra90		35°			
Fixture Power	9W	1	0.63	2343		
Source Flux	1196lm	2	1.26	586		
Fixture Flux	876lm	3	1.89	260		
Efficacy	95lm/W	4	2.51	146		
TS1628	Imax=1959cd/klm	Imax	2343cd	5	3.14	94

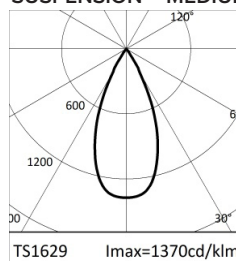
Maximum UGR = 2.0 (based on actual lumens)



	4000K	H(m)	D(m)	Emax(lx)		
	Ra90		35°			
Fixture Power	9W	1	0.63	2380		
Source Flux	1215lm	2	1.26	595		
Fixture Flux	889lm	3	1.89	264		
Efficacy	97lm/W	4	2.51	149		
TS1628	Imax=1959cd/klm	Imax	2380cd	5	3.14	95

Maximum UGR = 2.1 (based on actual lumens)

SUSPENSION – MEDIUM WIDE FLOOD



	2700K	H(m)	D(m)	Emax(lx)		
	Ra90		45°			
Fixture Power	9W	1	0.84	1574		
Source Flux	1149lm	2	1.68	393		
Fixture Flux	854lm	3	2.52	175		
Efficacy	93lm/W	4	3.35	98		
TS1629	Imax=1370cd/klm	Imax	1574cd	5	4.19	63

Maximum UGR = 2.8 (based on actual lumens)



	3000K	H(m)	D(m)	Emax(lx)		
	Ra90		45°			
Fixture Power	9W	1	0.84	1638		
Source Flux	1196lm	2	1.68	409		
Fixture Flux	889lm	3	2.52	182		
Efficacy	97lm/W	4	3.35	102		
TS1629	Imax=1370cd/klm	Imax	1638cd	5	4.19	66

Maximum UGR = 2.9 (based on actual lumens)



The diagram illustrates the light distribution of a fixture. It features a circular beam with a 45-degree angle, creating a conical shape. The beam diameter is 0.84m at a height of 1m. The diagram also shows the beam diameter at other heights: 1.68m at 2m, 2.52m at 3m, and 3.35m at 4m. The beam diameter at 5m is 4.19m. The beam diameter at 6m is 4.98m. The beam diameter at 7m is 5.77m. The beam diameter at 8m is 6.56m. The beam diameter at 9m is 7.35m. The beam diameter at 10m is 8.14m. The beam diameter at 11m is 8.93m. The beam diameter at 12m is 9.72m. The beam diameter at 13m is 10.51m. The beam diameter at 14m is 11.30m. The beam diameter at 15m is 12.09m. The beam diameter at 16m is 12.88m. The beam diameter at 17m is 13.67m. The beam diameter at 18m is 14.46m. The beam diameter at 19m is 15.25m. The beam diameter at 20m is 16.04m. The beam diameter at 21m is 16.83m. The beam diameter at 22m is 17.62m. The beam diameter at 23m is 18.41m. The beam diameter at 24m is 19.20m. The beam diameter at 25m is 20.00m. The beam diameter at 26m is 20.79m. The beam diameter at 27m is 21.58m. The beam diameter at 28m is 22.37m. The beam diameter at 29m is 23.16m. The beam diameter at 30m is 23.95m. The beam diameter at 31m is 24.74m. The beam diameter at 32m is 25.53m. The beam diameter at 33m is 26.32m. The beam diameter at 34m is 27.11m. The beam diameter at 35m is 27.90m. The beam diameter at 36m is 28.69m. The beam diameter at 37m is 29.48m. The beam diameter at 38m is 30.27m. The beam diameter at 39m is 31.06m. The beam diameter at 40m is 31.85m. The beam diameter at 41m is 32.64m. The beam diameter at 42m is 33.43m. The beam diameter at 43m is 34.22m. The beam diameter at 44m is 35.01m. The beam diameter at 45m is 35.80m. The beam diameter at 46m is 36.59m. The beam diameter at 47m is 37.38m. The beam diameter at 48m is 38.17m. The beam diameter at 49m is 38.96m. The beam diameter at 50m is 39.75m. The beam diameter at 51m is 40.54m. The beam diameter at 52m is 41.33m. The beam diameter at 53m is 42.12m. The beam diameter at 54m is 42.91m. The beam diameter at 55m is 43.70m. The beam diameter at 56m is 44.49m. The beam diameter at 57m is 45.28m. The beam diameter at 58m is 46.07m. The beam diameter at 59m is 46.86m. The beam diameter at 60m is 47.65m. The beam diameter at 61m is 48.44m. The beam diameter at 62m is 49.23m. The beam diameter at 63m is 50.02m. The beam diameter at 64m is 50.81m. The beam diameter at 65m is 51.60m. The beam diameter at 66m is 52.39m. The beam diameter at 67m is 53.18m. The beam diameter at 68m is 53.97m. The beam diameter at 69m is 54.76m. The beam diameter at 70m is 55.55m. The beam diameter at 71m is 56.34m. The beam diameter at 72m is 57.13m. The beam diameter at 73m is 57.92m. The beam diameter at 74m is 58.71m. The beam diameter at 75m is 59.50m. The beam diameter at 76m is 60.29m. The beam diameter at 77m is 61.08m. The beam diameter at 78m is 61.87m. The beam diameter at 79m is 62.66m. The beam diameter at 80m is 63.45m. The beam diameter at 81m is 64.24m. The beam diameter at 82m is 65.03m. The beam diameter at 83m is 65.82m. The beam diameter at 84m is 66.61m. The beam diameter at 85m is 67.40m. The beam diameter at 86m is 68.19m. The beam diameter at 87m is 68.98m. The beam diameter at 88m is 69.77m. The beam diameter at 89m is 70.56m. The beam diameter at 90m is 71.35m. The beam diameter at 91m is 72.14m. The beam diameter at 92m is 72.93m. The beam diameter at 93m is 73.72m. The beam diameter at 94m is 74.51m. The beam diameter at 95m is 75.30m. The beam diameter at 96m is 76.09m. The beam diameter at 97m is 76.88m. The beam diameter at 98m is 77.67m. The beam diameter at 99m is 78.46m. The beam diameter at 100m is 79.25m. The beam diameter at 101m is 80.04m. The beam diameter at 102m is 80.83m. The beam diameter at 103m is 81.62m. The beam diameter at 104m is 82.41m. The beam diameter at 105m is 83.20m. The beam diameter at 106m is 83.99m. The beam diameter at 107m is 84.78m. The beam diameter at 108m is 85.57m. The beam diameter at 109m is 86.36m. The beam diameter at 110m is 87.15m. The beam diameter at 111m is 87.94m. The beam diameter at 112m is 88.73m. The beam diameter at 113m is 89.52m. The beam diameter at 114m is 90.31m. The beam diameter at 115m is 91.10m. The beam diameter at 116m is 91.89m. The beam diameter at 117m is 92.68m. The beam diameter at 118m is 93.47m. The beam diameter at 119m is 94.26m. The beam diameter at 120m is 95.05m. The beam diameter at 121m is 95.84m. The beam diameter at 122m is 96.63m. The beam diameter at 123m is 97.42m. The beam diameter at 124m is 98.21m. The beam diameter at 125m is 99.00m. The beam diameter at 126m is 99.79m. The beam diameter at 127m is 100.58m. The beam diameter at 128m is 101.37m. The beam diameter at 129m is 102.16m. The beam diameter at 130m is 102.95m. The beam diameter at 131m is 103.74m. The beam diameter at 132m is 104.53m. The beam diameter at 133m is 105.32m. The beam diameter at 134m is 106.11m. The beam diameter at 135m is 106.90m. The beam diameter at 136m is 107.69m. The beam diameter at 137m is 108.48m. The beam diameter at 138m is 109.27m. The beam diameter at 139m is 110.06m. The beam diameter at 140m is 110.85m. The beam diameter at 141m is 111.64m. The beam diameter at 142m is 112.43m. The beam diameter at 143m is 113.22m. The beam diameter at 144m is 114.01m. The beam diameter at 145m is 114.80m. The beam diameter at 146m is 115.59m. The beam diameter at 147m is 116.38m. The beam diameter at 148m is 117.17m. The beam diameter at 149m is 117.96m. The beam diameter at 150m is 118.75m. The beam diameter at 151m is 119.54m. The beam diameter at 152m is 120.33m. The beam diameter at 153m is 121.12m. The beam diameter at 154m is 121.91m. The beam diameter at 155m is 122.70m. The beam diameter at 156m is 123.49m. The beam diameter at 157m is 124.28m. The beam diameter at 158m is 125.07m. The beam diameter at 159m is 125.86m. The beam diameter at 160m is 126.65m. The beam diameter at 161m is 127.44m. The beam diameter at 162m is 128.23m. The beam diameter at 163m is 129.02m. The beam diameter at 164m is 129.81m. The beam diameter at 165m is 130.60m. The beam diameter at 166m is 131.39m. The beam diameter at 167m is 132.18m. The beam diameter at 168m is 132.97m. The beam diameter at 169m is 133.76m. The beam diameter at 170m is 134.55m. The beam diameter at 171m is 135.34m. The beam diameter at 172m is 136.13m. The beam diameter at 173m is 136.92m. The beam diameter at 174m is 137.71m. The beam diameter at 175m is 138.50m. The beam diameter at 176m is 139.29m. The beam diameter at 177m is 140.08m. The beam diameter at 178m is 140.87m. The beam diameter at 179m is 141.66m. The beam diameter at 180m is 142.45m. The beam diameter at 181m is 143.24m. The beam diameter at 182m is 144.03m. The beam diameter at 183m is 144.82m. The beam diameter at 184m is 145.61m. The beam diameter at 185m is 146.40m. The beam diameter at 186m is 147.19m. The beam diameter at 187m is 147.98m. The beam diameter at 188m is 148.77m. The beam diameter at 189m is 149.56m. The beam diameter at 190m is 150.35m. The beam diameter at 191m is 151.14m. The beam diameter at 192m is 151.93m. The beam diameter at 193m is 152.72m. The beam diameter at 194m is 153.51m. The beam diameter at 195m is 154.30m. The beam diameter at 196m is 155.09m. The beam diameter at 197m is 155.88m. The beam diameter at 198m is 156.67m. The beam diameter at 199m is 157.46m. The beam diameter at 200m is 158.25m. The beam diameter at 201m is 159.04m. The beam diameter at 202m is 159.83m. The beam diameter at 203m is 160.62m. The beam diameter at 204m is 161.41m. The beam diameter at 205m is 162.20m. The beam diameter at 206m is 162.99m. The beam diameter at 207m is 163.78m. The beam diameter at 208m is 164.57m. The beam diameter at 209m is 165.36m. The beam diameter at 210m is 166.15m. The beam diameter at 211m is 166.94m. The beam diameter at 212m is 167.73m. The beam diameter at 213m is 168.52m. The beam diameter at 214m is 169.31m. The beam diameter at 215m is 170.10m. The beam diameter at 216m is 170.89m. The beam diameter at 217m is 171.68m. The beam diameter at 218m is 172.47m. The beam diameter at 219m is 173.26m. The beam diameter at 220m is 174.05m. The beam diameter at 221m is 174.84m. The beam diameter at 222m is 175.63m. The beam diameter at 223m is 176.42m. The beam diameter at 224m is 177.21m. The beam diameter at 225m is 178.00m. The beam diameter at 226m is 178.79m. The beam diameter at 227m is 179.58m. The beam diameter at 228m is 180.37m. The beam diameter at 229m is 181.16m. The beam diameter at 230m is 181.95m. The beam diameter at 231m is 182.74m. The beam diameter at 232m is 183.53m. The beam diameter at 233m is 184.32m. The beam diameter at 234m is 185.11m. The beam diameter at 235m is 185.90m. The beam diameter at 236m is 186.69m. The beam diameter at 237m is 187.48m. The beam diameter at 238m is 188.27m. The beam diameter at 239m is 189.06m. The beam diameter at 240m is 189.85m. The beam diameter at 241m is 190.64m. The beam diameter at 242m is 191.43m. The beam diameter at 243m is 192.22m. The beam diameter at 244m is 193.01m. The beam diameter at 245m is 193.80m. The beam diameter at 246m is 194.59m. The beam diameter at 247m is 195.38m. The beam diameter at 248m is 196.17m. The beam diameter at 249m is 196.96m. The beam diameter at 250m is 197.75m. The beam diameter at 251m is 198.54m. The beam diameter at 252m is 199.33m. The beam diameter at 253m is 200.12m. The beam diameter at 254m is 200.91m. The beam diameter at 255m is 201.70m. The beam diameter at 256m is 202.49m. The beam diameter at 257m is 203.28m. The beam diameter at 258m is 204.07m. The beam diameter at 259m is 204.86m. The beam diameter at 260m is 205.65m. The beam diameter at 261m is 206.44m. The beam diameter at 262m is 207.23m. The beam diameter at 263m is 208.02m. The beam diameter at 264m is 208.81m. The beam diameter at 265m is 209.60m. The beam diameter at 266m is 210.39m. The beam diameter at 267m is 211.18m. The beam diameter at 268m is 211.97m. The beam diameter at 269m is 212.76m. The beam diameter at 270m is 213.55m. The beam diameter at 271m is 214.34m. The beam diameter at 272m is 215.13m. The beam diameter at 273m is 215.92m. The beam diameter at 274m is 216.71m. The beam diameter at 275m is 217.50m. The beam diameter at 276m is 218.29m. The beam diameter at 277m is 219.08m. The beam diameter at 278m is 219.87m. The beam diameter at 279m is 220.66m. The beam diameter at 280m is 221.45m. The beam diameter at 281m is 222.24m. The beam diameter at 282m is 223.03m. The beam diameter at 283m is 223.82m. The beam diameter at 284m is 224.61m. The beam diameter at 285m is 225.40m. The beam diameter at 286m is 226.19m. The beam diameter at 287m is 226.98m. The beam diameter at 288m is 227.77m. The beam diameter at 289m is 228.56m. The beam diameter at 290m is 229.35m. The beam diameter at 291m is 230.14m. The beam diameter at 292m is 230.93m. The beam diameter at 293m is 231.72m. The beam diameter at 294m is 232.51m. The beam diameter at 295m is 233.30m. The beam diameter at 296m is 234.09m. The beam diameter at 297m is 234.88m. The beam diameter at 298m is 235.67m. The beam diameter at 299m is 236.46m. The beam diameter at 300m is 237.25m. The beam diameter at 301m is 238.04m. The beam diameter at 302m is 238.83m. The beam diameter at 303m is 239.62m. The beam diameter at 304m is 240.41m. The beam diameter at 305m is 241.20m. The beam diameter at 306m is 241.99m. The beam diameter at 307m is 242.78m. The beam diameter at 308m is 243.57m. The beam diameter at 309m is 244.36m. The beam diameter at 310m is 245.15m. The beam diameter at 311m is 245.94m. The beam diameter at 312m is 246.73m. The beam diameter at 313m is 247.52m. The beam diameter at 314m is 248.31m. The beam diameter at 315m is 249.10m. The beam diameter at 316m is 249.89m. The beam diameter at 317m is 250.68m. The beam diameter at 318m is 251.47m. The beam diameter at 319m is 252.26m. The beam diameter at 320m is 253.05m. The beam diameter at 321m is 253.84m. The beam diameter at 322m is 254.63m. The beam diameter at 323m is 255.42m. The beam diameter at 324m is 256.21m. The beam diameter at 325m is 257.00m. The beam diameter at 326m is 257.79m. The beam diameter at 327m is 258.58m. The beam diameter at 328m is 259.37m. The beam diameter at 329m is 260.16m. The beam diameter at 330m is 260.95m. The beam diameter at 331m is 261.74m. The beam diameter at 332m is 262.53m. The beam diameter at 333m is 263.32m. The beam diameter at 334m is 264.11m. The beam diameter at 335m is 264.90m. The beam diameter at 336m is 265.69m. The beam diameter at 337m is 266.48m. The beam diameter at 338m is 267.27m. The beam diameter at 339m is 268.06m. The beam diameter at 340m is 268.85m. The beam diameter at 341m is 269.64m. The beam diameter at 342m is 270.43m. The beam diameter at 343m is 271.22m. The beam diameter at 344m is 272.01m. The beam diameter at 345m is 272.80m. The beam diameter at 346m is 273.59m. The beam diameter at 347m is 274.38m. The beam diameter at 348m is 275.17m. The beam diameter at 349m is 275.96m. The beam diameter at 350m is 276.75m. The beam diameter at 351m is 277.54m. The beam diameter at 352m is 278.33m. The beam diameter at 353m is 279.12m. The beam diameter at 354m is 279.91m. The beam diameter at 355m is 280.70m. The beam diameter at 356m is 281.49m. The beam diameter at 357m is 282.28m. The beam diameter at 358m is 283.07m. The beam diameter at 359m is 283.86m. The beam diameter at 360m is 284.65m. The beam diameter at 361m is 285.44m. The beam diameter at 362m is 286.23m. The beam diameter at 363m is 287.02m. The beam diameter at 364m is 287.81m. The beam diameter at 365m is 288.60m. The beam diameter at 366m is 289.39m. The beam diameter at 367m is 290.18m. The beam diameter at 368m is 290.97m. The beam diameter at 369m is 291.76m. The beam diameter at 370m is 292.55m. The beam diameter at 371m is 293.34m. The beam diameter at 372m is 294.13m. The beam diameter at 373m is 294.92m. The beam diameter at 374m is 295.71m. The beam diameter at 375m is 296.50m. The beam diameter at 376m is 297.29m. The beam diameter at 377m is 298.08m. The beam diameter at 378m is 298.87m. The beam diameter at 379m is 299.66m. The beam diameter at 380m is 300.45m. The beam diameter at 381m is 301.24m. The beam diameter at 382m is 302.03m. The beam diameter at 383m is 302.82m. The beam diameter at 384m is 303.61m. The beam diameter at 385m is 304.40m. The beam diameter at 386m is 305.19m. The beam diameter at 387m is 305.98m. The beam diameter at 388m is 306.77m. The beam diameter at 389m is 307.56m. The beam diameter at 390m is 308.35m. The beam diameter at 391m is 309.14m. The beam diameter at 392m is 309.93m. The beam diameter at 393m is 310.72m. The beam diameter at 394m is 311.51m. The beam diameter at 395m is 312.30m. The beam diameter at 396m is 313.09m. The beam diameter at 397m is 313.88m. The beam diameter at 398m is 314.67m. The beam diameter at 399m is 315.46m. The beam diameter at 400m is 316.25m. The beam diameter at 401m is 317.04m. The beam diameter at 402m is 317.83m. The beam diameter at 403m is 318.62m. The beam diameter at 404m is 319.41m. The beam diameter at 405m is 320.20m. The beam diameter at 406m is 320.99m. The beam diameter at 407m is 321.78m. The beam diameter at 408m is 322.57m. The beam diameter at 409m is 323.36m. The beam diameter at 410m is 324.15m. The beam diameter at 411m is 324.94m. The beam diameter at 412m is 325.73m. The beam diameter at 413m is 326.52m. The beam diameter at 414m is 327.31m. The beam diameter at 415m is 328.10m. The beam diameter at 416m is 328.89m. The beam diameter at 417m is 329.68m. The beam diameter at 418m is 330.47m. The beam diameter at 419m is 331.26m. The beam diameter at 420m is 332.05m. The beam diameter at 421m is 332.84m. The beam diameter at 422m is 333.63m. The beam diameter at 423m is 334.42m. The beam diameter at 424m is 335.21m. The beam diameter at 425m is 336.00m. The beam diameter at 426m is 336.79m. The beam diameter at 427m is 337.58m. The beam diameter at 428m is 338.37m. The beam diameter at 429m is 339.16m. The beam diameter at 430m is 339.95m. The beam diameter at 431m is 340.74m. The beam diameter at 432m is 341.53m. The beam diameter at 433m is 342.32m. The beam diameter at 434m is 343.11m. The beam diameter at 435m is 343.90m. The beam diameter at 436m is 344.69m. The beam diameter at 437m is 345.48m. The beam diameter at 438m is 346.27m. The beam diameter at 439m is 347.06m. The beam diameter at 440m is 347.85m. The beam diameter at 441m is 348.64m. The beam diameter at 442m is 349.43m. The beam diameter at 443m is 350.22m. The beam diameter at 444m is 351.01m. The beam diameter at 445m is 351.80m. The beam diameter at 446m is 352.59m. The beam diameter at 447m is 353.38m. The beam diameter at 448m is 354.17m. The beam diameter at 449m is 354.96m. The beam diameter at 450m is 355.75m. The beam diameter at 451m is 356.54m. The beam diameter at 452m is 357.33m. The beam diameter at 453m is 358.12m. The beam diameter at 454m is 358.91m. The beam diameter at 455m is 359.70m. The beam diameter at 456m is 360.49m. The beam diameter at 457m is 361.28m. The beam diameter at 458m is 362.07m. The beam diameter at 459m is 362.86m. The beam diameter at 460m is 363.65m. The beam diameter at 461m is 364.44m. The beam diameter at 462m is 365.23m. The beam diameter at 463m is 366.02m. The beam diameter at 464m is 366.81m. The beam diameter at 465m is 367.60m. The beam diameter at 466m is 368.39m. The beam diameter at 467m is 369.18m. The beam diameter at 468m is 369.97m. The beam diameter at 469m is 370.76m. The beam diameter at 470m is 371.55m. The beam diameter at 471m is 372.34m. The beam diameter at 472m is 373.13m. The beam diameter at 473m is 373.92m. The beam diameter at 474m is 374.71m. The beam diameter at 475m is 375.50m. The beam diameter at 476m is 376.29m. The beam diameter at 477m is 377.08m. The beam diameter at 478m is 377.87m. The beam diameter at 479m is 378.66m. The beam diameter at 480m is 379.45m. The beam diameter at 481m is 380.24m. The beam diameter at 482m is 381.03m. The beam diameter at 483m is 381.82m. The beam diameter at 484m is 382.61m. The beam diameter at 485m is 383.40m. The beam diameter at 486m is 384.19m. The beam diameter at 487m is 384.98m. The beam diameter at 488m is 385.77m. The beam diameter at 489m is 386.56m. The beam diameter at 490m is 387.35m. The beam diameter at 491m is 388.14m. The beam diameter at 492m is 388.93m. The beam diameter at 493m is 389.72m. The beam diameter at 494m is 390.51m. The beam diameter at 495m is 391.30m. The beam diameter at 496m is 392.09m. The beam diameter at 497m is 392.88m. The beam diameter at 498m is 393.67m. The beam diameter at 499m is 394.46m. The beam diameter at 500m is 395.25m. The beam diameter at 501m is 396.04m. The beam diameter at 502m is 396.83m. The beam diameter at 503m is 397.62m. The beam diameter at 504m is 398.41m. The beam diameter at 505m is 399.20m. The beam diameter at 506m is 400.00m. The beam diameter at 507m is 400.79m. The beam diameter at 508m is 401.58m. The beam diameter at 509m is 402.37m. The beam diameter at 510m is 403.16m. The beam diameter at 511m is 403.95m. The beam diameter at 512m is 404.74m. The beam diameter at 513m is 405.53m. The beam diameter at 514m is 406.32m. The beam diameter at 515m is 407.11m. The beam diameter at 516m is 407.90m. The beam diameter at 517m is 408.69m. The beam diameter at 518m is 409.48m. The beam diameter at 519m is 410.27m. The beam diameter at 520m is 411.06m. The beam diameter at 521m is 411.85m. The beam diameter at 522m is 412.64m. The beam diameter at 523m is 413.43m. The beam diameter at 524m is 414.22m. The beam diameter at 525m is 415.01m. The beam diameter at 526m is 415.80m. The beam diameter at 527m is 416.59m. The beam diameter at 528m is 417.38m. The beam diameter at 529m is 418.17m. The beam diameter at 530m is 418.96m. The beam diameter at 531m is 419.75m. The beam diameter at 532m is 420.54m. The beam diameter at 533m is 421.33m. The beam diameter at 534m is 422.12m. The beam diameter at 535m is 422.91m. The beam diameter at 536m is 423.70m. The beam diameter at 537m is 424.49m. The beam diameter at 538m is 425.28m. The beam diameter at 539m is 426.07m. The beam diameter at 540m is 426.86m. The beam diameter at 541m is 427.65m. The beam diameter at 542m is 428.44m. The beam diameter at 543m is 429.23m. The beam diameter at 544m is 430.02m. The beam diameter at 545m is 430.81m. The beam diameter at 546m is 431.60m. The beam diameter at 547m is 432.39m. The beam diameter at 548m is 433.18m. The beam diameter at 549m is 433.97m. The beam diameter at 550m is 434.76m. The beam diameter at 551m is 435.55m. The beam diameter at 552m is 436.34m. The beam diameter at 553m is 437.13m. The beam diameter at 554m is 437.92m. The beam diameter at 555m is 438.71m. The beam diameter at 556m is 439.50m. The beam diameter at 557m is 440.29m. The beam diameter at 558m is 441.08m. The beam diameter at 559m is 441.87m. The beam diameter at 560m is 442.66m. The beam diameter at 561m is 443.45m. The beam diameter at 562m is 444.24m. The beam diameter at 563m is 445.03m. The beam diameter at 564m is 445.82m. The beam diameter at 565m is 446.61m. The beam diameter at 566m is 447.40m. The beam diameter at 567m is 448.19m. The beam diameter at 568m is 448.98m. The beam diameter at 569m is 449.77m. The beam diameter at 570m is 450.56m. The beam diameter at 571m is 451.35m. The beam diameter at 572m is 452.14m. The beam diameter at 573m is 452.93m. The beam diameter at 574m is 453.72m. The beam diameter at 575m is 454.51m. The beam diameter at 576m is 455.30m. The beam diameter at 577m is 456.09m. The beam diameter at 578m is 456.88m. The beam diameter at 579m is 457.67m. The beam diameter at 580m is 458.46m. The beam diameter at 581m is 459.25m. The beam diameter at 582m is 460.04m. The beam diameter at 583m is 460.83m. The beam diameter at 584m is 461.62m. The beam diameter at 585m is 462.41m. The beam diameter at 586m is 463.20m. The beam diameter at 587m is 463.99m. The beam diameter at 588m is 464.78m. The beam diameter at 589m is 465.57m. The beam diameter at 590m is 466.36m. The beam diameter at 591m is 467.15m. The beam diameter at 592m is 467.94m. The beam diameter at 593m is 468.73m. The beam diameter at 594m is 469.52m. The beam diameter at 595m is 470.31m. The beam diameter at 596m is 471.10m. The beam diameter at 597m is 471.89m. The beam diameter at 598m is 472.68m. The beam diameter at 599m is 473.47m. The beam diameter at 600m is 474.26m. The beam diameter at 601m is 475.05m. The beam diameter at 602m is 475.84m. The beam diameter at 603m is 476.63m. The beam diameter at 604m is 477.42m. The beam diameter at 605m is 478.21m. The beam diameter at 606m is 479.00m. The beam diameter at 607m is 479.79m. The beam diameter at 608m is 480.58m. The beam diameter at 609m is 481.37m. The beam diameter at 610m is 482.16m. The beam diameter at 611m is 482.95m. The beam diameter at 612m is 483.74m. The beam diameter at 613m is 484.53m. The beam diameter at 614m is 485.32m. The beam diameter at 615m is 486.11m. The beam diameter at 616m is 486.90m. The beam diameter at 617m is 487.69m. The beam diameter at 618m is 488.48m. The beam diameter at 619m is 489.27m. The beam diameter at 620m is 490.06m. The beam diameter at 621m is 490.85m. The beam diameter at 622m is 491.64m. The beam diameter at 623m is 492.43m. The beam diameter at 624m is 493.22m. The beam diameter at 625m is 494.01m. The beam diameter at 626m is 494.80m. The beam diameter at 627m is 495.59m. The beam diameter at 628m is 496.38m. The beam diameter at 629m is 497.17m. The beam diameter at 630m is 497.96m. The beam diameter at 631m is 498.75m. The beam diameter at 632m is 499.54m. The beam diameter at 633m is 500.33m. The beam diameter at 634m is 501.12m. The beam diameter at 635m is 501.91m. The beam diameter at 636m is 502.70m. The beam diameter at 637m is 503.49m. The beam diameter at 638m is 504.28m. The beam diameter at 639m is 505.07m. The beam diameter at 640m is 505.86m. The beam diameter at 641m is 506.65m. The beam diameter at 642m is 507.44m. The beam diameter at 643m is 508.23m. The beam diameter at 644m is 509.02m. The beam diameter at 645m is 509.81m. The beam diameter at 646m is 510.60m. The beam diameter at 647m is 511.39m. The beam diameter at 648m is 512.18m. The beam diameter at 649m is 512.97m. The beam diameter at 650m is 513.76m. The beam diameter at 651m is 514.55m. The beam diameter at 652m is 515.34m. The beam diameter at 653m is 516.13m. The beam diameter at 654m is 516.92m. The beam diameter at 655m is 517.71m. The beam diameter at 656m is 518.50m. The beam diameter at 657m is 519.29m. The beam diameter at 658m is 520.08m. The beam diameter at 659m is 520.87m. The beam diameter at 660m is 521.66m. The beam diameter at

Maximum UGR = 3.0 (based on actual lumens)