

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P198318

Luminaire Tested: **TT-C2-LED-E1-MQ-CG-MS/DIM-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198318
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND DOWNLIGHT
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C2-LED-E1-MQ-CG-MS/DIM-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS AND DIMMING OCCUPANCY SENSOR
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4959 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B2 - U4 - G2

Input Watts (W): 51.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

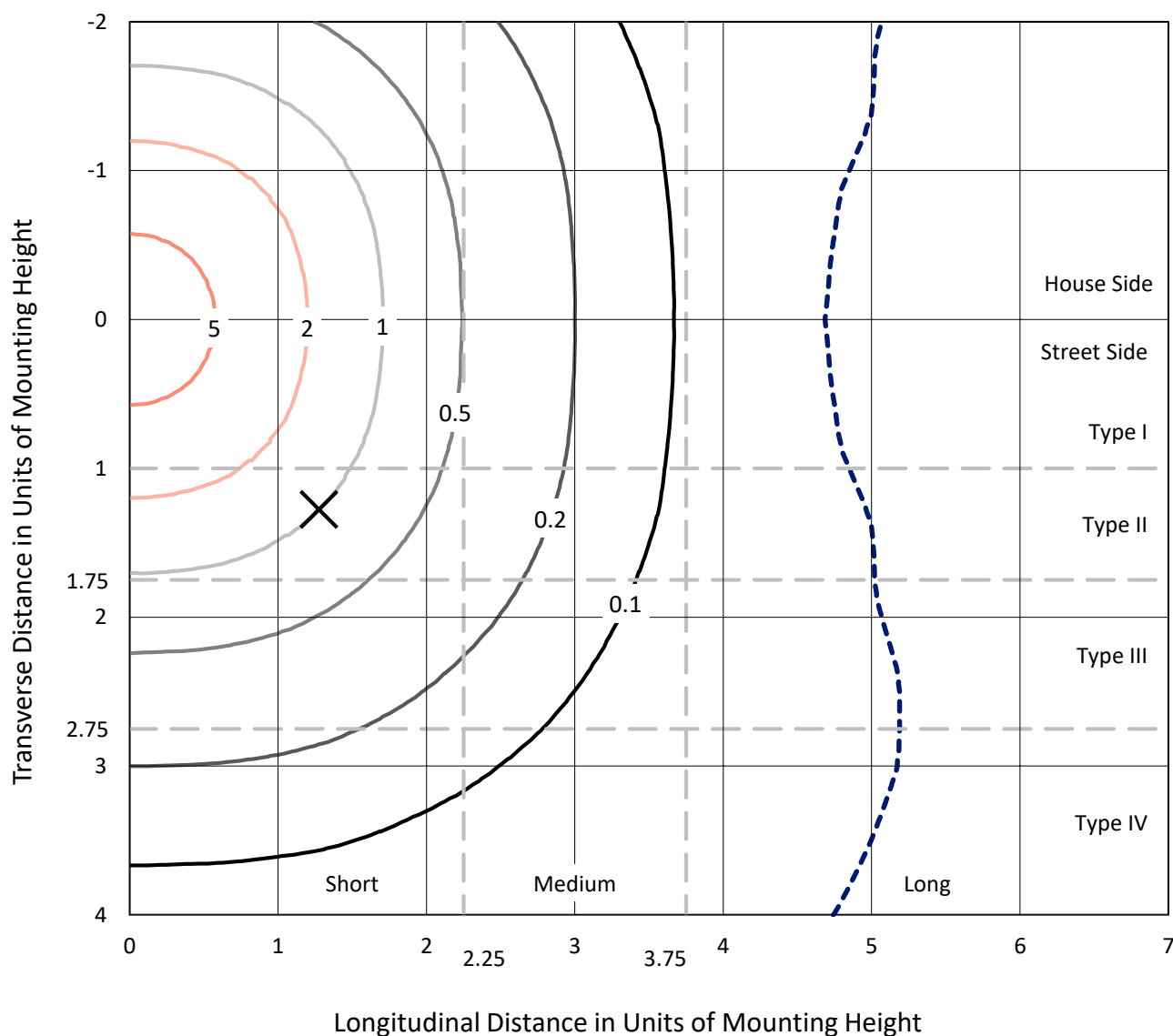


REPORT NUMBER: P198318

CATALOG NUMBER: TT-C2-LED-E1-MQ-CG-MS/DIM-UPL

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

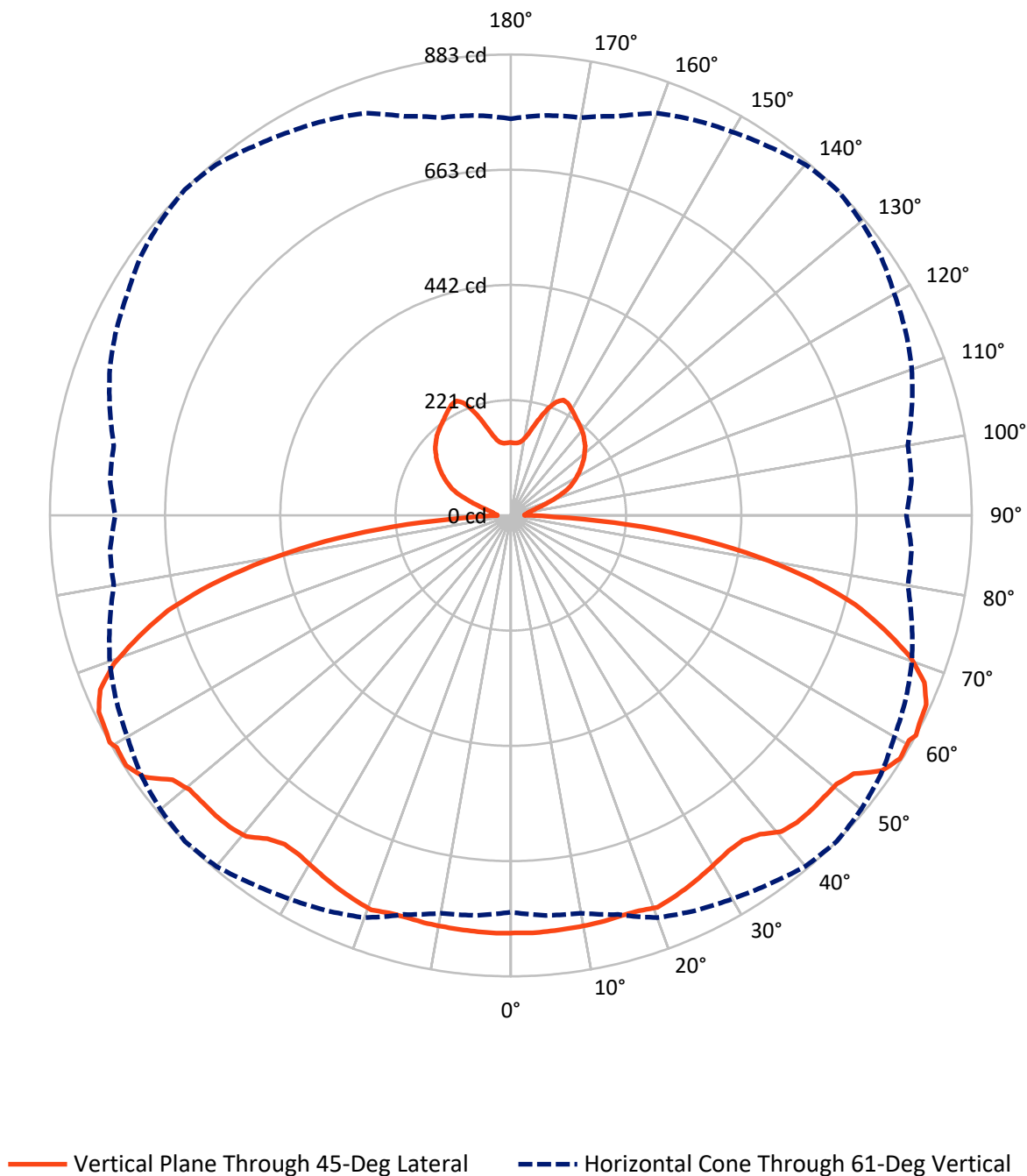


Based on 10 foot mounting height. Maximum calculated value = 8 fc
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P198318

CATALOG NUMBER: TT-C2-LED-E1-MQ-CG-MS/DIM-UPL

Luminous Intensity Polar Plot



REPORT NUMBER: P198318

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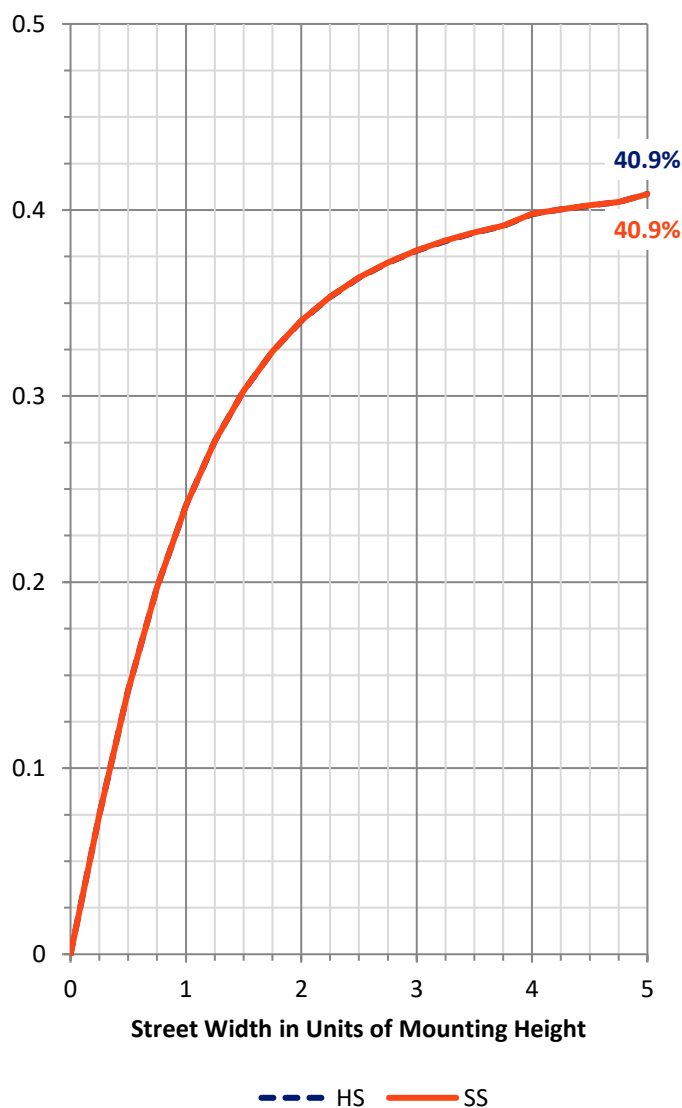
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2067.5	412.0	2479.5
	% Fixture	41.7	8.3	50.0
Street Side	Lumens	2067.5	412.0	2479.5
	% Fixture	41.7	8.3	50.0
Total	Lumens	4135.1	824.0	4959.0
	% Fixture	83.4	16.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.3	1.5
10°-20°	225.7	4.6
20°-30°	363.2	7.3
30°-40°	481.1	9.7
40°-50°	607.6	12.3
50°-60°	728.0	14.7
60°-70°	796.0	16.1
70°-80°	637.2	12.8
80°-90°	220.0	4.4
90°-100°	38.3	0.8
100°-110°	59.4	1.2
110°-120°	119.3	2.4
120°-130°	148.7	3.0
130°-140°	153.2	3.1
140°-150°	136.0	2.7
150°-160°	103.7	2.1
160°-170°	51.8	1.0
170°-180°	13.6	0.3
0°-90°	4135.1	83.4
0°-180°	4959.0	100.0

Coefficient of Utilization



REPORT NUMBER: P198318

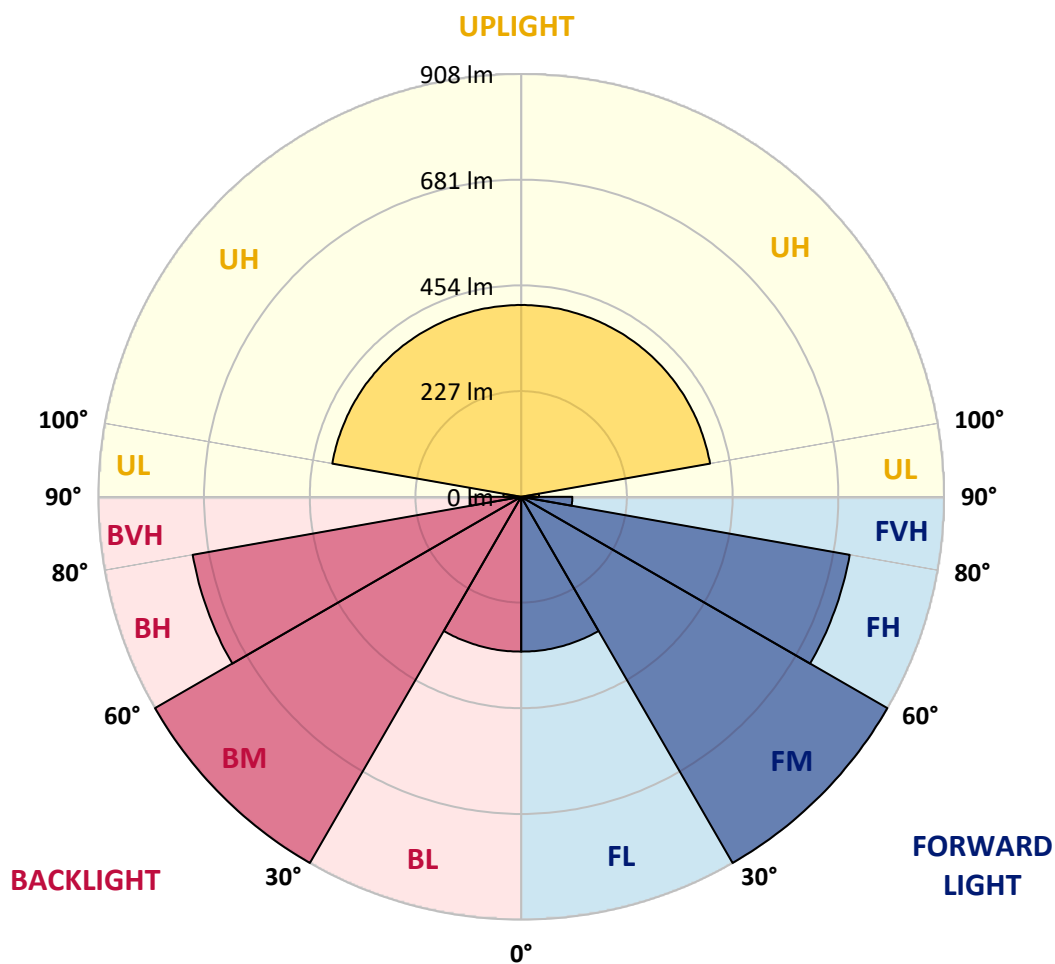
CATALOG NUMBER: TT-C2-LED-E1-MQ-CG-MS/DIM-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	332.6	6.7			
FM	(30°-60°)	908.3	18.3			
FH	(60°-80°)	716.6	14.5			G1/1800
FVH	(80°-90°)	110.0	2.2			G2/225
BL	(0°-30°)	332.6	6.7	B1/500		
BM	(30°-60°)	908.3	18.3	B1/1000		
BH	(60°-80°)	716.6	14.5	B2/1000		G1/1800
BVH	(80°-90°)	110.0	2.2			G2/225
UL	(90°-100°)	38.3	0.8		U2/50	
UH	(100°-180°)	412.0	8.3		U3/500	

BUG Rating: B2-U4-G2

Type V Short



REPORT NUMBER: P198318

CATALOG NUMBER: TT-C2-LED-E1-MQ-CG-MS/DIM-UPL

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	800.3	800.3	800.3	800.3	800.3	800.3	800.3	800.3	800.3	800.3	800.3
2.5°	801.1	800.3	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1	801.1
5°	800.3	800.3	800.3	800.3	800.3	800.3	800.3	800.3	800.3	800.3	800.3
7.5°	799.5	799.5	799.5	799.5	799.5	799.5	799.5	799.5	800.3	799.5	800.3
10°	798.0	798.0	798.0	798.0	798.8	798.8	798.8	798.8	798.8	798.8	798.8
12.5°	796.5	796.5	796.5	796.5	797.2	797.2	797.2	797.2	798.0	798.0	797.2
15°	794.9	794.2	794.2	794.9	794.9	795.7	795.7	795.7	796.5	795.7	795.7
17.5°	793.4	792.6	793.4	794.2	794.2	794.9	795.7	795.7	796.5	796.5	796.5
20°	795.7	794.9	795.7	796.5	797.2	798.8	799.5	800.3	801.1	801.9	801.9
22.5°	791.1	790.3	791.1	791.1	791.9	792.6	794.2	794.9	795.7	795.7	795.7
25°	784.1	784.1	784.9	784.9	785.6	786.4	787.2	788.0	788.0	788.8	788.0
27.5°	776.4	776.4	777.2	777.2	778.7	778.7	779.5	780.3	781.0	781.0	781.0
30°	767.2	767.2	768.0	768.7	770.3	771.0	771.8	772.6	773.3	773.3	773.3
32.5°	758.8	758.0	758.8	760.3	762.6	764.1	765.7	766.4	766.4	766.4	767.2
35°	751.8	752.6	754.1	755.7	758.8	760.3	761.8	764.1	764.9	764.9	764.9
37.5°	753.4	754.1	756.5	759.5	763.4	768.0	771.0	774.1	776.4	775.6	774.9
40°	763.4	764.9	768.7	773.3	779.5	785.6	790.3	794.2	796.5	797.2	796.5
42.5°	764.9	766.4	769.5	776.4	783.3	790.3	796.5	800.3	803.4	804.2	803.4
45°	764.1	764.1	768.7	776.4	783.3	790.3	798.0	803.4	806.5	806.5	806.5
47.5°	758.8	761.1	764.1	771.8	781.0	788.0	795.7	801.1	804.9	807.2	804.9
50°	758.8	758.8	764.1	769.5	777.9	790.3	801.1	806.5	810.3	809.5	810.3
52.5°	757.2	761.8	764.9	772.6	788.0	800.3	808.8	816.4	821.8	822.6	821.0
55°	771.0	771.8	778.7	793.4	808.0	821.8	837.3	848.8	858.0	863.4	855.7
57.5°	781.8	777.9	791.9	804.2	821.0	841.9	864.9	874.1	881.1	879.6	881.9
60°	767.2	772.6	782.6	795.7	822.6	843.4	855.7	865.7	874.1	876.5	873.4
61°	760.3	769.5	774.1	791.9	820.3	835.7	848.8	862.6	878.0	883.4	876.5
62.5°	748.8	763.4	761.8	790.3	808.0	825.7	850.3	866.4	877.2	878.8	877.2
65°	749.5	747.2	764.9	785.6	803.4	835.0	855.7	865.7	871.8	874.9	873.4
67.5°	724.9	717.2	738.7	753.4	783.3	808.0	828.0	842.6	851.9	854.9	851.1
70°	668.0	673.3	688.7	711.1	735.6	765.7	784.1	803.4	811.1	811.8	811.8
72.5°	613.3	616.4	631.8	652.5	681.0	707.2	725.6	741.0	748.0	748.8	750.3
75°	541.0	544.0	561.7	581.0	609.5	631.8	644.8	663.3	673.3	681.8	674.9
77.5°	457.1	462.4	476.4	497.1	523.3	535.6	558.6	580.2	587.1	589.4	587.1
80°	362.4	369.3	381.7	409.4	420.9	441.0	463.2	472.5	478.7	480.2	481.0
82.5°	260.9	266.3	279.3	298.6	311.7	327.8	343.2	354.8	361.7	360.1	359.4
85°	153.9	155.4	169.3	182.4	192.4	202.4	214.7	223.2	224.7	227.8	227.0
87.5°	46.2	46.9	53.1	60.0	64.6	69.3	77.0	87.0	89.3	83.1	83.9
90°	36.0	36.0	36.0	36.0	35.0	34.0	31.0	29.0	27.0	26.0	26.0
92.5°	40.0	39.0	39.0	38.0	36.0	34.0	32.0	29.0	27.0	27.0	27.0
95°	44.0	43.0	42.0	41.0	38.0	36.0	34.0	32.0	31.0	30.0	30.0
97.5°	42.0	42.0	41.0	40.0	38.0	37.0	36.0	35.0	34.0	33.0	32.0
100°	45.0	45.0	45.0	44.0	42.0	40.0	39.0	38.0	36.0	36.0	35.0
102.5°	51.0	51.0	50.0	49.0	47.0	46.0	45.0	44.0	42.0	42.0	42.0
105°	60.0	60.0	59.0	57.0	55.0	54.0	53.0	53.0	51.0	52.0	52.0
107.5°	72.0	72.0	72.0	70.0	68.0	67.0	66.0	66.0	66.0	68.0	68.0

REPORT NUMBER: P198318

CATALOG NUMBER: TT-C2-LED-E1-MQ-CG-MS/DIM-UPL

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	86.0	86.0	87.0	89.0	86.0	85.0	85.0	86.0	86.0	87.0	86.0
112.5°	101.0	102.0	104.0	108.0	106.0	107.0	107.0	110.0	108.0	107.0	103.0
115°	121.0	122.0	123.0	128.0	126.0	128.0	127.0	129.0	126.0	124.0	120.0
117.5°	140.0	141.0	141.0	144.0	141.0	141.0	140.0	141.0	138.0	136.0	135.0
120°	152.0	153.0	154.0	155.0	151.0	149.0	147.0	149.0	147.0	147.0	148.0
122.5°	161.0	162.0	163.0	164.0	159.0	154.0	153.0	155.0	156.0	158.0	158.0
125°	169.0	169.0	170.0	172.0	168.0	163.0	160.0	165.0	166.0	168.0	167.0
127.5°	177.0	177.0	179.0	181.0	177.0	171.0	170.0	176.0	177.0	178.0	175.0
130°	187.0	188.0	190.0	191.0	185.0	179.0	179.0	186.0	187.0	186.0	183.0
132.5°	198.0	199.0	200.0	201.0	193.0	186.0	187.0	193.0	195.0	195.0	191.0
135°	210.0	210.0	211.0	209.0	199.0	192.0	193.0	199.0	202.0	201.0	197.0
137.5°	221.0	219.0	217.0	213.0	203.0	197.0	198.0	205.0	207.0	208.0	203.0
140°	229.0	226.0	222.0	216.0	205.0	200.0	201.0	207.0	210.0	213.0	212.0
142.5°	235.0	231.0	225.0	218.0	206.0	201.0	202.0	208.0	212.0	218.0	218.0
145°	235.0	230.0	225.0	218.0	207.0	202.0	204.0	211.0	215.0	223.0	225.0
147.5°	230.0	227.0	223.0	219.0	210.0	207.0	209.0	216.0	220.0	229.0	233.0
150°	224.0	221.0	219.0	220.0	215.0	214.0	216.0	222.0	227.0	235.0	239.0
152.5°	216.0	214.0	216.0	221.0	220.0	220.0	224.0	230.0	234.0	241.0	241.0
155°	208.0	207.0	211.0	219.0	222.0	224.0	229.0	237.0	239.0	243.0	239.0
157.5°	203.0	203.0	207.0	216.0	220.0	224.0	229.0	234.0	232.0	235.0	230.0
160°	199.0	198.0	203.0	210.0	212.0	213.0	216.0	219.0	216.0	219.0	216.0
162.5°	185.0	184.0	188.0	193.0	194.0	193.0	196.0	198.0	195.0	198.0	196.0
165°	169.0	167.0	169.0	173.0	173.0	173.0	175.0	176.0	174.0	177.0	175.0
167.5°	154.0	152.0	153.0	156.0	156.0	155.0	157.0	159.0	157.0	159.0	158.0
170°	142.0	141.0	142.0	145.0	144.0	144.0	146.0	147.0	146.0	147.0	147.0
172.5°	137.0	135.0	136.0	139.0	139.0	138.0	140.0	141.0	140.0	141.0	140.0
175°	136.0	134.0	135.0	137.0	137.0	137.0	138.0	139.0	138.0	139.0	138.0
177.5°	137.0	136.0	136.0	139.0	138.0	138.0	139.0	140.0	139.0	139.0	138.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

REPORT NUMBER: P198318

CATALOG NUMBER: TT-C2-LED-E1-MQ-CG-MS/DIM-UPL

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	800.3	800.3	800.3	800.3	800.3	800.3	800.3	800.3
2.5°	801.1	801.1	801.1	801.1	801.1	801.1	800.3	801.1
5°	800.3	800.3	800.3	800.3	800.3	800.3	800.3	800.3
7.5°	800.3	799.5	799.5	799.5	799.5	799.5	799.5	799.5
10°	798.8	798.8	798.8	798.8	798.0	798.0	798.0	798.0
12.5°	797.2	797.2	797.2	797.2	796.5	796.5	796.5	796.5
15°	795.7	795.7	795.7	795.7	794.9	794.9	794.9	794.9
17.5°	796.5	795.7	794.9	794.9	794.2	793.4	793.4	793.4
20°	801.1	800.3	798.8	797.2	796.5	795.7	795.7	795.7
22.5°	794.9	794.2	792.6	791.9	791.9	791.1	790.3	790.3
25°	788.0	786.4	786.4	785.6	785.6	784.1	784.1	783.3
27.5°	780.3	779.5	778.7	777.9	777.9	777.2	776.4	775.6
30°	773.3	771.8	770.3	769.5	768.7	768.0	768.0	768.0
32.5°	766.4	764.9	764.1	761.8	760.3	759.5	758.8	758.8
35°	764.1	761.8	760.3	758.0	755.7	754.1	753.4	751.8
37.5°	773.3	770.3	768.0	764.1	758.8	756.5	754.1	753.4
40°	793.4	790.3	785.6	779.5	773.3	768.7	764.9	763.4
42.5°	800.3	796.5	790.3	784.1	776.4	769.5	766.4	764.9
45°	802.6	798.8	790.3	782.6	775.6	769.5	764.9	763.4
47.5°	800.3	794.9	787.2	781.0	771.0	763.4	760.3	758.0
50°	805.7	801.1	791.1	777.2	768.7	764.1	758.8	758.0
52.5°	816.4	808.0	798.8	788.8	772.6	763.4	760.3	756.5
55°	848.8	837.3	821.0	804.9	794.9	780.3	771.0	771.0
57.5°	873.4	864.1	843.4	821.8	803.4	792.6	778.7	779.5
60°	866.4	854.2	844.2	822.6	796.5	781.8	776.4	766.4
61°	865.7	848.8	835.0	818.0	795.7	772.6	771.0	758.0
62.5°	867.2	851.9	825.7	808.0	791.1	761.1	760.3	748.0
65°	865.7	851.1	838.0	804.9	781.8	769.5	743.4	753.4
67.5°	841.9	828.7	804.9	786.4	751.1	735.6	721.0	721.0
70°	804.2	784.9	761.8	738.7	714.9	688.7	675.6	668.0
72.5°	741.0	724.9	706.4	681.8	652.5	628.7	616.4	611.0
75°	661.8	644.1	627.9	609.5	578.7	558.6	545.6	541.7
77.5°	578.7	563.3	534.8	517.1	496.3	473.3	461.7	457.1
80°	472.5	464.0	444.0	415.5	405.5	377.0	369.3	362.4
82.5°	354.8	345.5	327.0	307.1	294.8	278.5	264.7	263.2
85°	223.2	217.0	205.5	190.8	175.5	166.2	153.9	157.0
87.5°	83.1	79.3	72.4	63.1	56.1	50.0	43.9	46.2
90°	28.0	30.0	32.0	33.0	34.0	34.0	34.0	34.0
92.5°	28.0	30.0	32.0	33.0	35.0	36.0	36.0	36.0
95°	30.0	32.0	34.0	35.0	37.0	38.0	39.0	38.0
97.5°	33.0	34.0	34.0	35.0	36.0	36.0	36.0	36.0
100°	36.0	37.0	38.0	38.0	38.0	38.0	37.0	37.0
102.5°	43.0	44.0	44.0	42.0	42.0	41.0	41.0	41.0
105°	54.0	54.0	53.0	51.0	49.0	48.0	48.0	49.0
107.5°	68.0	68.0	66.0	63.0	60.0	59.0	59.0	60.0

REPORT NUMBER: P198318

CATALOG NUMBER: TT-C2-LED-E1-MQ-CG-MS/DIM-UPL

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	84.0	83.0	84.0	81.0	78.0	76.0	74.0	75.0
112.5°	102.0	102.0	105.0	103.0	100.0	98.0	95.0	94.0
115°	121.0	123.0	125.0	124.0	123.0	121.0	116.0	113.0
117.5°	138.0	140.0	141.0	139.0	139.0	139.0	133.0	129.0
120°	150.0	151.0	153.0	148.0	148.0	148.0	145.0	142.0
122.5°	159.0	160.0	162.0	156.0	155.0	156.0	153.0	150.0
125°	167.0	167.0	168.0	164.0	163.0	164.0	160.0	158.0
127.5°	176.0	175.0	175.0	173.0	173.0	173.0	166.0	163.0
130°	183.0	182.0	183.0	181.0	184.0	181.0	171.0	169.0
132.5°	190.0	189.0	192.0	189.0	192.0	190.0	179.0	176.0
135°	196.0	197.0	201.0	199.0	199.0	195.0	185.0	184.0
137.5°	203.0	205.0	210.0	207.0	204.0	198.0	191.0	190.0
140°	212.0	214.0	217.0	214.0	209.0	202.0	195.0	195.0
142.5°	220.0	222.0	223.0	217.0	211.0	204.0	198.0	198.0
145°	230.0	230.0	227.0	217.0	211.0	205.0	201.0	202.0
147.5°	239.0	236.0	229.0	218.0	212.0	207.0	204.0	206.0
150°	242.0	240.0	232.0	220.0	214.0	211.0	210.0	211.0
152.5°	242.0	241.0	235.0	223.0	219.0	217.0	215.0	216.0
155°	238.0	237.0	234.0	227.0	224.0	223.0	220.0	219.0
157.5°	228.0	229.0	229.0	226.0	226.0	225.0	222.0	219.0
160°	215.0	217.0	219.0	219.0	221.0	222.0	218.0	215.0
162.5°	196.0	199.0	200.0	201.0	204.0	208.0	207.0	207.0
165°	176.0	179.0	181.0	181.0	185.0	189.0	190.0	192.0
167.5°	160.0	163.0	165.0	164.0	168.0	171.0	172.0	174.0
170°	148.0	150.0	152.0	152.0	155.0	158.0	159.0	160.0
172.5°	141.0	144.0	145.0	144.0	146.0	149.0	149.0	151.0
175°	138.0	140.0	141.0	140.0	141.0	143.0	143.0	144.0
177.5°	138.0	140.0	140.0	138.0	140.0	141.0	141.0	141.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

(END OF REPORT)