

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: P198240

Luminaire Tested: **TT-C1-LED-E1-DL-CG-MS/DIM-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198240
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND DOWNLIGHT
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C1-LED-E1-DL-CG-MS/DIM-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
DRIVE LANE DISTRIBUTION WITH CLEAR GLASS LENS AND DIMMING OCCUPANCY SENSOR
Light Source: (160) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3726.9 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U4 - G1

Input Watts (W): 50.9
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

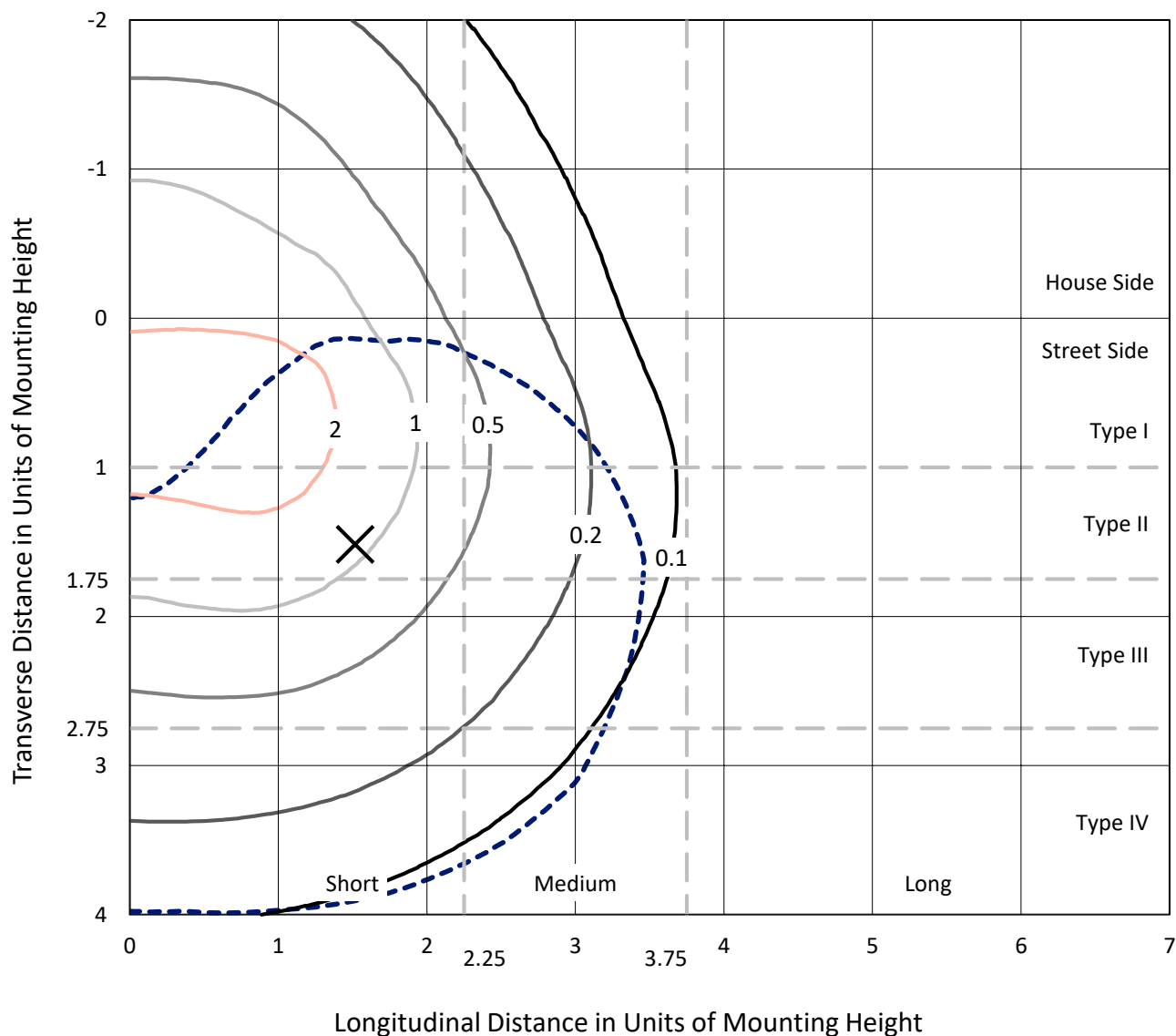


REPORT NUMBER: P198240

CATALOG NUMBER: TT-C1-LED-E1-DL-CG-MS/DIM-UPL

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

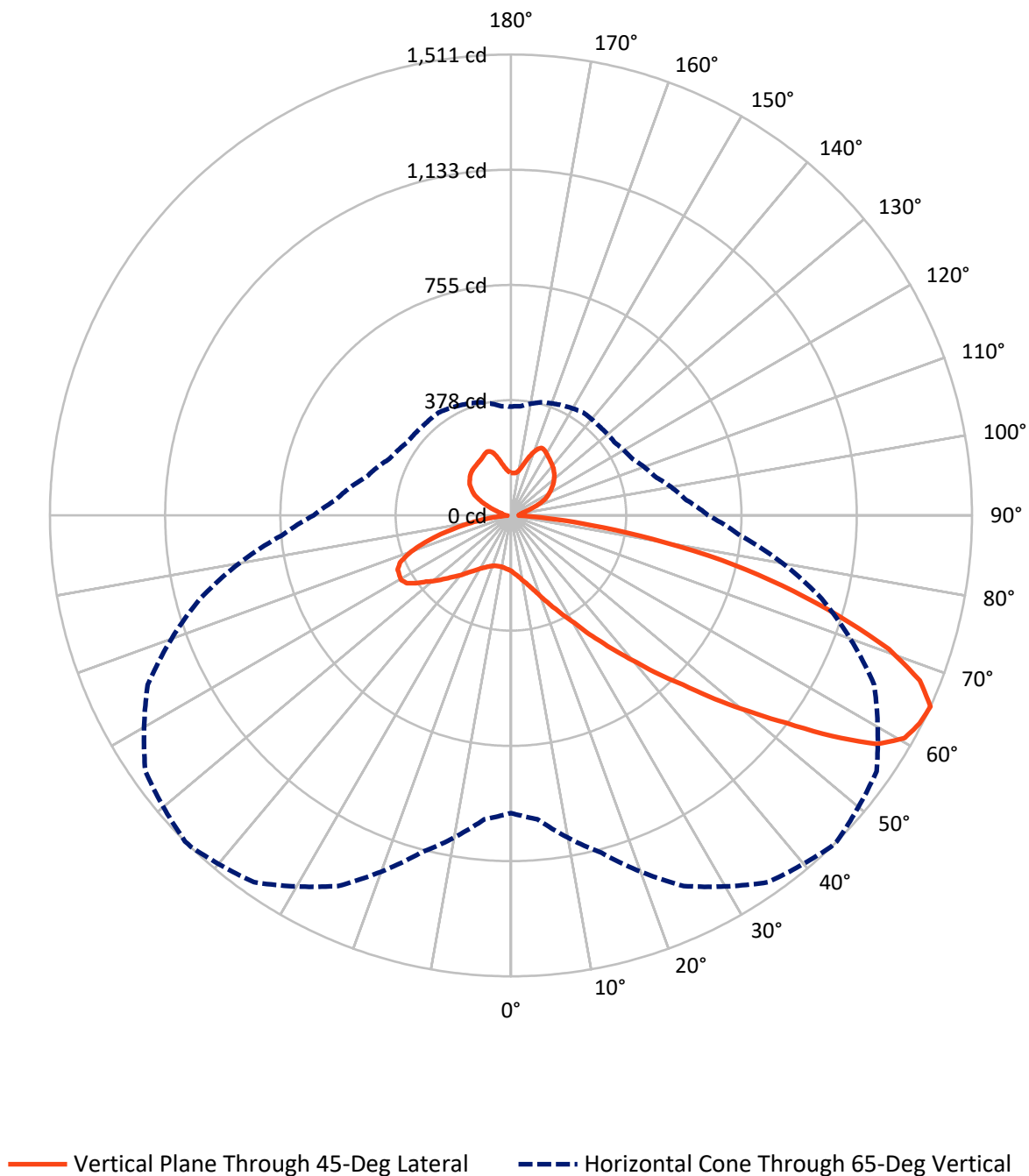


Based on 10 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P198240

CATALOG NUMBER: TT-C1-LED-E1-DL-CG-MS/DIM-UPL

Luminous Intensity Polar Plot



REPORT NUMBER: P198240

CATALOG NUMBER: TT-C1-LED-E1-DL-CG-MS/DIM-UPL

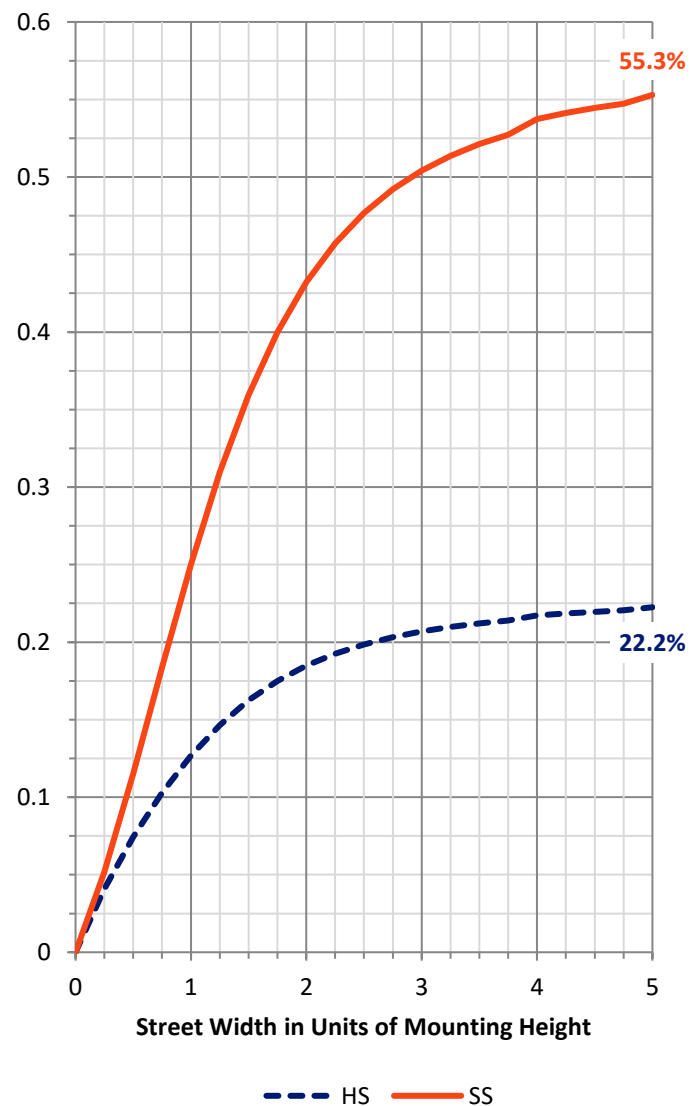
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	838.9	387.3	1226.3
	% Fixture	22.5	10.4	32.9
Street Side	Lumens	2088.0	412.6	2500.6
	% Fixture	56.0	11.1	67.1
Total	Lumens	2926.9	800.0	3726.9
	% Fixture	78.5	21.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.1	0.5
10°-20°	59.8	1.6
20°-30°	121.5	3.3
30°-40°	223.5	6.0
40°-50°	395.9	10.6
50°-60°	649.5	17.4
60°-70°	798.0	21.4
70°-80°	549.1	14.7
80°-90°	111.4	3.0
90°-100°	36.3	1.0
100°-110°	55.2	1.5
110°-120°	110.8	3.0
120°-130°	144.2	3.9
130°-140°	148.0	4.0
140°-150°	133.4	3.6
150°-160°	102.6	2.8
160°-170°	55.1	1.5
170°-180°	14.3	0.4
0°-90°	2926.9	78.5
0°-180°	3726.9	100.0

Coefficient of Utilization



REPORT NUMBER: P198240

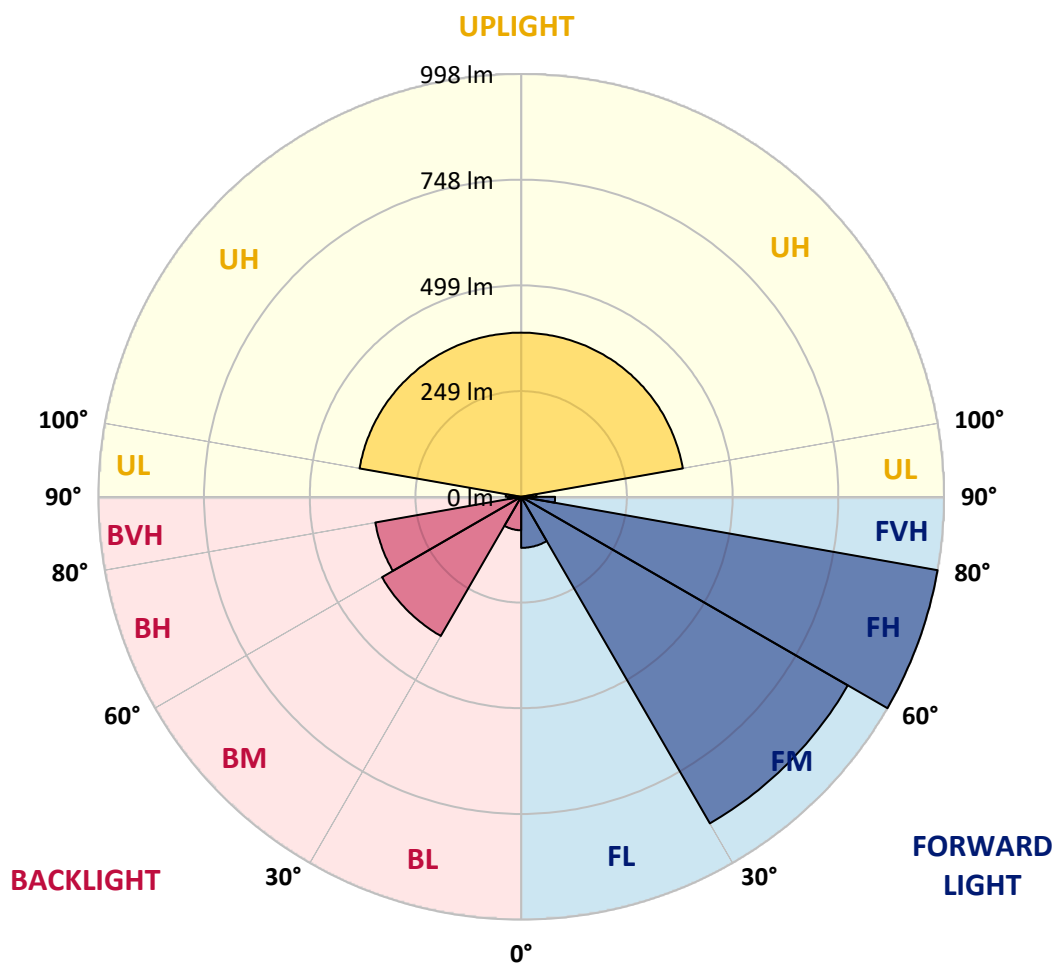
CATALOG NUMBER: TT-C1-LED-E1-DL-CG-MS/DIM-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	120.5	3.2			
FM	(30°-60°)	889.8	23.9			
FH	(60°-80°)	997.6	26.8			G1/1800
FVH	(80°-90°)	80.1	2.1			G1/100
BL	(0°-30°)	78.8	2.1	B0/110		
BM	(30°-60°)	379.2	10.2	B1/1000		
BH	(60°-80°)	349.5	9.4	B1/500		G1/500
BVH	(80°-90°)	31.4	0.8			G1/100
UL	(90°-100°)	36.3	1.0		U2/50	
UH	(100°-180°)	387.3	10.4		U3/500	

BUG Rating: B1-U4-G1

Type IV Short



REPORT NUMBER: P198240

CATALOG NUMBER: TT-C1-LED-E1-DL-CG-MS/DIM-UPL

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2
2.5°	192.2	192.2	191.6	191.0	190.4	189.8	189.8	188.6	187.5	186.3	185.1
5°	202.1	201.6	201.6	201.0	199.8	197.4	196.9	195.7	193.3	190.4	188.0
7.5°	212.7	212.7	212.7	211.0	208.6	206.8	205.7	203.3	199.8	195.7	191.6
10°	225.1	225.7	224.5	223.3	220.9	217.4	217.4	212.7	207.4	202.1	196.9
12.5°	239.8	240.3	240.3	238.0	233.3	230.4	229.2	223.9	217.4	210.4	202.7
15°	255.0	257.4	256.2	255.0	249.7	245.6	244.5	236.2	229.2	219.8	210.4
17.5°	279.1	277.9	275.6	272.7	269.7	263.8	262.7	253.9	243.3	231.5	219.2
20°	301.5	301.5	299.1	296.8	293.2	285.0	286.2	274.4	260.3	246.2	229.8
22.5°	326.1	326.7	325.0	322.6	319.7	313.2	311.4	299.1	280.9	262.1	242.7
25°	350.8	352.0	353.2	353.2	349.1	341.4	340.2	324.4	305.6	280.9	257.4
27.5°	380.2	383.1	382.0	383.1	381.4	372.6	372.6	356.1	334.9	304.4	273.8
30°	407.8	411.3	413.1	417.8	417.8	412.5	408.4	393.1	367.9	332.0	295.0
32.5°	444.2	444.2	447.8	457.8	463.1	455.4	457.8	440.7	407.2	364.9	319.1
35°	481.3	481.3	487.7	501.2	506.5	508.3	508.3	487.1	453.7	403.1	348.5
37.5°	520.1	521.2	533.6	551.8	567.1	565.3	567.7	550.6	511.2	448.4	382.5
40°	558.8	562.4	581.8	602.9	628.8	637.0	633.5	622.9	573.5	501.8	420.7
42.5°	601.1	607.6	629.4	662.3	689.9	712.2	712.8	695.8	647.0	564.1	466.6
45°	645.2	655.2	678.1	721.0	765.7	792.1	791.5	793.3	744.5	641.7	525.3
47.5°	695.8	702.2	734.5	786.8	846.8	899.7	899.1	897.3	834.4	713.4	571.8
50°	746.3	749.8	793.9	869.7	950.2	1001.9	1008.4	1014.8	929.6	803.3	628.8
52.5°	798.6	800.9	855.6	946.7	1061.8	1138.2	1130.0	1133.0	1068.3	920.2	719.3
55°	849.1	849.7	918.5	1046.6	1185.8	1264.6	1276.9	1290.4	1181.7	983.7	746.3
57.5°	892.6	897.3	989.0	1146.5	1312.8	1420.3	1414.4	1397.4	1244.6	1009.0	750.4
60°	930.2	941.4	1058.9	1239.3	1409.7	1475.5	1482.0	1424.4	1264.6	1019.5	745.7
62.5°	957.8	976.1	1120.0	1309.8	1466.1	1506.7	1502.6	1436.2	1298.1	1061.3	774.5
65°	975.5	999.6	1144.7	1340.4	1467.9	1509.6	1510.8	1462.6	1313.4	1054.2	753.9
67.5°	977.2	1011.3	1137.1	1319.2	1440.3	1451.4	1445.0	1373.9	1242.8	989.6	695.2
70°	963.7	989.0	1099.5	1239.3	1324.5	1318.1	1313.9	1239.9	1115.9	894.4	619.4
72.5°	910.8	929.0	1004.8	1103.0	1141.2	1137.7	1120.6	1064.2	964.3	765.7	524.2
75°	805.6	818.0	851.5	905.0	940.2	927.9	917.3	862.6	779.8	625.2	416.0
77.5°	662.8	649.3	666.4	687.5	705.2	709.3	706.9	651.1	591.2	470.7	316.7
80°	464.2	460.1	458.4	467.8	483.6	477.7	468.3	446.6	399.6	320.8	222.1
82.5°	275.6	270.9	269.1	273.8	265.6	266.8	267.4	245.0	232.7	195.7	127.5
85°	121.6	121.6	118.7	118.7	118.1	118.7	121.6	114.0	106.4	88.7	61.1
87.5°	18.2	16.5	22.9	21.2	24.7	28.2	25.9	24.7	20.6	15.9	12.3
90°	36.0	36.0	36.0	34.0	29.0	26.2	26.0	28.0	32.0	34.0	34.0
92.5°	40.0	39.0	38.0	34.0	29.0	27.0	27.0	28.0	32.0	35.0	36.0
95°	44.0	43.0	41.0	36.0	32.0	30.2	30.0	30.0	34.0	37.0	39.0
97.5°	42.0	42.0	40.0	37.0	35.0	33.2	33.0	33.0	34.0	36.0	36.0
100°	45.0	45.0	44.0	40.0	38.0	36.0	36.0	36.0	38.0	38.0	37.0
102.5°	51.0	51.0	49.0	46.0	44.0	42.0	42.0	43.0	44.0	42.0	41.0
105°	60.0	60.0	57.0	54.0	53.0	51.8	52.0	54.0	53.0	49.0	48.0
107.5°	72.0	72.0	70.0	67.0	66.0	67.6	68.0	68.0	66.0	60.0	59.0
110°	86.0	86.0	89.0	85.0	86.0	86.8	87.0	84.0	84.0	78.0	74.0

REPORT NUMBER: P198240

CATALOG NUMBER: TT-C1-LED-E1-DL-CG-MS/DIM-UPL

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
112.5°	101.0	102.0	108.0	107.0	110.0	107.2	107.0	102.0	105.0	100.0	95.0
115°	121.0	122.0	128.0	128.0	129.0	124.4	124.0	121.0	125.0	123.0	116.0
117.5°	140.0	141.0	144.0	141.0	141.0	136.4	136.0	138.0	141.0	139.0	133.0
120°	152.0	153.0	155.0	149.0	149.0	147.0	147.0	150.0	153.0	148.0	145.0
122.5°	161.0	162.0	164.0	154.0	155.0	157.6	158.0	159.0	162.0	155.0	153.0
125°	169.0	169.0	172.0	163.0	165.0	167.6	168.0	167.0	168.0	163.0	160.0
127.5°	177.0	177.0	181.0	171.0	176.0	177.8	178.0	176.0	175.0	173.0	166.0
130°	187.0	188.0	191.0	179.0	186.0	186.2	186.0	183.0	183.0	184.0	171.0
132.5°	198.0	199.0	201.0	186.0	193.0	195.0	195.0	190.0	192.0	192.0	179.0
135°	210.0	210.0	209.0	192.0	199.0	201.2	201.0	196.0	201.0	199.0	185.0
137.5°	221.0	219.0	213.0	197.0	205.0	207.8	208.0	203.0	210.0	204.0	191.0
140°	229.0	226.0	216.0	200.0	207.0	212.4	213.0	212.0	217.0	209.0	195.0
142.5°	235.0	231.0	218.0	201.0	208.0	216.8	218.0	220.0	223.0	211.0	198.0
145°	235.0	230.0	218.0	202.0	211.0	221.4	223.0	230.0	227.0	211.0	201.0
147.5°	230.0	227.0	219.0	207.0	216.0	227.2	229.0	239.0	229.0	212.0	204.0
150°	224.0	221.0	220.0	214.0	222.0	233.4	235.0	242.0	232.0	214.0	210.0
152.5°	216.0	214.0	221.0	220.0	230.0	239.6	241.0	242.0	235.0	219.0	215.0
155°	208.0	207.0	219.0	224.0	237.0	242.2	243.0	238.0	234.0	224.0	220.0
157.5°	203.0	203.0	216.0	224.0	234.0	234.4	235.0	228.0	229.0	226.0	222.0
160°	199.0	198.0	210.0	213.0	219.0	218.4	219.0	215.0	219.0	221.0	218.0
162.5°	185.0	184.0	193.0	193.0	198.0	197.4	198.0	196.0	200.0	204.0	207.0
165°	169.0	167.0	173.0	173.0	176.0	176.4	177.0	176.0	181.0	185.0	190.0
167.5°	154.0	152.0	156.0	155.0	159.0	158.6	159.0	160.0	165.0	168.0	172.0
170°	142.0	141.0	145.0	144.0	147.0	146.8	147.0	148.0	152.0	155.0	159.0
172.5°	137.0	135.0	139.0	138.0	141.0	140.8	141.0	141.0	145.0	146.0	149.0
175°	136.0	134.0	137.0	137.0	139.0	138.8	139.0	138.0	141.0	141.0	143.0
177.5°	137.0	136.0	139.0	138.0	140.0	139.0	139.0	138.0	140.0	140.0	141.0
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: P198240

CATALOG NUMBER: TT-C1-LED-E1-DL-CG-MS/DIM-UPL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2	182.2
2.5°	184.5	183.9	182.2	181.0	179.2	178.1	176.9	176.3	176.3	175.7	176.3
5°	186.9	185.7	182.8	180.4	178.1	176.3	174.5	172.8	171.6	171.0	171.0
7.5°	189.2	187.5	183.3	179.8	176.3	173.4	171.0	169.8	168.1	167.5	166.9
10°	193.3	191.0	185.1	179.8	175.7	171.6	168.6	166.9	165.7	165.1	165.1
12.5°	199.2	195.1	188.0	181.6	175.7	171.0	167.5	165.1	163.9	162.8	163.4
15°	205.1	200.4	191.6	182.8	176.3	171.6	167.5	165.1	163.4	162.8	162.2
17.5°	212.7	207.4	196.9	186.9	178.6	172.8	168.6	166.3	164.5	163.9	163.9
20°	222.7	215.7	202.1	191.0	182.2	175.7	171.0	168.6	166.9	166.9	166.9
22.5°	232.7	223.9	208.0	195.7	186.3	179.2	175.1	172.8	171.0	170.4	171.0
25°	244.5	234.5	216.2	201.6	191.6	185.1	181.0	178.1	176.3	176.3	176.3
27.5°	260.3	248.6	225.1	210.4	198.6	191.6	186.9	185.1	183.9	183.3	182.8
30°	277.9	262.7	238.0	219.2	207.4	199.8	195.7	193.9	192.2	191.0	190.4
32.5°	299.1	281.5	250.3	230.9	217.4	209.8	205.7	203.3	201.6	201.0	201.0
35°	325.5	303.8	268.0	245.0	229.8	221.5	217.4	215.1	213.3	212.7	213.3
37.5°	352.0	326.7	286.8	260.3	244.5	234.5	230.4	227.4	226.2	225.1	225.7
40°	384.3	353.2	308.5	279.1	260.3	252.1	245.6	242.1	240.3	238.6	237.4
42.5°	423.7	388.4	335.5	299.1	279.1	268.0	261.5	257.4	253.9	252.7	250.9
45°	473.6	430.7	370.8	324.4	300.3	286.2	278.5	273.2	268.0	266.8	265.0
47.5°	514.8	468.3	400.2	353.8	326.1	307.3	296.8	289.1	282.7	281.5	279.7
50°	560.6	508.3	427.8	378.4	347.3	331.4	317.9	307.3	300.3	296.8	297.9
52.5°	638.8	572.9	477.2	412.5	373.1	352.6	342.0	327.9	316.7	311.4	312.6
55°	655.8	593.5	503.6	445.4	406.6	382.5	363.7	349.6	335.5	326.1	325.5
57.5°	655.2	591.2	501.8	450.1	423.1	407.2	390.8	367.9	350.8	338.5	337.9
60°	647.6	582.3	493.0	441.9	422.5	417.8	409.0	391.9	364.3	350.8	347.9
62.5°	666.4	598.2	500.1	440.7	416.6	414.3	411.9	401.4	376.7	357.9	354.9
65°	646.4	577.1	489.5	439.0	416.0	411.3	411.9	397.8	383.7	359.6	356.7
67.5°	588.2	528.9	447.8	404.3	393.1	394.3	398.4	391.9	376.1	356.1	353.8
70°	523.6	468.9	397.2	358.5	350.2	356.7	367.9	368.4	357.9	342.0	342.6
72.5°	440.7	394.3	336.7	305.6	302.6	307.9	316.7	327.3	324.4	319.7	320.3
75°	357.3	319.7	267.4	246.8	246.2	250.3	262.1	270.3	276.2	277.9	282.1
77.5°	265.0	243.3	203.3	186.3	184.5	189.8	202.7	209.8	218.0	224.5	230.4
80°	185.7	165.7	139.9	126.9	129.3	132.8	141.0	149.8	155.7	161.0	161.0
82.5°	108.7	98.1	83.4	77.6	78.7	84.0	85.8	93.4	94.0	97.5	99.9
85°	51.1	44.1	40.0	39.4	39.4	40.0	43.5	44.1	44.7	45.8	50.5
87.5°	10.6	10.6	10.6	10.6	10.6	12.3	12.9	14.1	13.5	14.1	13.5
90°	34.0	34.0	34.0	32.0	27.0	21.0	25.0	30.0	33.0	34.0	34.0
92.5°	36.0	35.0	33.0	31.0	27.0	23.0	25.0	29.0	34.0	36.0	36.0
95°	38.0	38.0	35.0	33.0	29.0	26.0	27.0	31.0	34.0	35.0	36.0
97.5°	36.0	35.0	35.0	34.0	30.0	25.0	26.0	30.0	33.0	35.0	35.0
100°	37.0	37.0	38.0	38.0	33.0	27.0	28.0	32.0	35.0	36.0	36.0
102.5°	41.0	42.0	43.0	45.0	39.0	32.0	33.0	35.0	38.0	40.0	41.0
105°	49.0	49.0	52.0	54.0	48.0	39.0	38.0	41.0	44.0	48.0	49.0
107.5°	60.0	61.0	65.0	65.0	58.0	50.0	47.0	50.0	54.0	60.0	61.0
110°	75.0	77.0	78.0	75.0	71.0	65.0	60.0	62.0	67.0	73.0	74.0

REPORT NUMBER: P198240

CATALOG NUMBER: TT-C1-LED-E1-DL-CG-MS/DIM-UPL

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	94.0	94.0	91.0	86.0	84.0	82.0	77.0	80.0	85.0	87.0	87.0
115°	113.0	111.0	104.0	100.0	99.0	102.0	99.0	103.0	106.0	102.0	102.0
117.5°	129.0	128.0	121.0	117.0	116.0	120.0	121.0	125.0	125.0	120.0	120.0
120°	142.0	142.0	137.0	134.0	134.0	137.0	137.0	139.0	139.0	134.0	136.0
122.5°	150.0	153.0	151.0	148.0	149.0	149.0	145.0	148.0	149.0	145.0	146.0
125°	158.0	162.0	162.0	159.0	160.0	159.0	149.0	154.0	156.0	154.0	154.0
127.5°	163.0	169.0	170.0	168.0	168.0	169.0	154.0	158.0	163.0	160.0	161.0
130°	169.0	176.0	178.0	174.0	175.0	175.0	159.0	164.0	169.0	164.0	167.0
132.5°	176.0	182.0	186.0	181.0	183.0	181.0	165.0	171.0	176.0	171.0	174.0
135°	184.0	190.0	195.0	190.0	191.0	187.0	170.0	177.0	184.0	179.0	179.0
137.5°	190.0	196.0	204.0	200.0	199.0	191.0	175.0	182.0	192.0	187.0	187.0
140°	195.0	201.0	213.0	212.0	206.0	195.0	180.0	186.0	200.0	195.0	196.0
142.5°	198.0	204.0	220.0	222.0	212.0	197.0	184.0	190.0	205.0	204.0	205.0
145°	202.0	208.0	225.0	230.0	216.0	199.0	187.0	193.0	208.0	211.0	214.0
147.5°	206.0	212.0	230.0	236.0	219.0	202.0	191.0	195.0	212.0	220.0	225.0
150°	211.0	216.0	231.0	235.0	219.0	205.0	194.0	199.0	215.0	227.0	233.0
152.5°	216.0	220.0	229.0	230.0	220.0	208.0	201.0	205.0	219.0	232.0	239.0
155°	219.0	221.0	224.0	222.0	220.0	213.0	208.0	212.0	224.0	234.0	240.0
157.5°	219.0	219.0	216.0	213.0	216.0	219.0	215.0	220.0	229.0	232.0	235.0
160°	215.0	214.0	210.0	208.0	213.0	223.0	224.0	228.0	233.0	229.0	232.0
162.5°	207.0	207.0	204.0	204.0	209.0	221.0	227.0	231.0	230.0	224.0	226.0
165°	192.0	194.0	196.0	198.0	203.0	212.0	216.0	219.0	220.0	215.0	217.0
167.5°	174.0	177.0	181.0	184.0	189.0	195.0	196.0	199.0	200.0	197.0	200.0
170°	160.0	163.0	166.0	168.0	172.0	177.0	178.0	180.0	181.0	178.0	181.0
172.5°	151.0	153.0	155.0	156.0	159.0	162.0	162.0	164.0	165.0	163.0	166.0
175°	144.0	146.0	147.0	148.0	149.0	151.0	151.0	152.0	153.0	151.0	153.0
177.5°	141.0	142.0	142.0	142.0	143.0	144.0	143.0	144.0	145.0	143.0	145.0
180°	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0	140.0

(END OF REPORT)