

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: P198250

Luminaire Tested: **TT-C1-LED-E1-MQ-CG-LWR-LW-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198250
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P27139) AND SCALED
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: TT-C1-LED-E1-MQ-CG-LWR-LW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
MEDIUM DISTRIBUTION WITH CLEAR GLASS LENS AND LumaWatt WIRELESS SENSOR
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3937.1 lumens
Efficiency: N/A
Efficacy: 86.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B2 - U4 - G1

Input Watts (W): 45.4
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



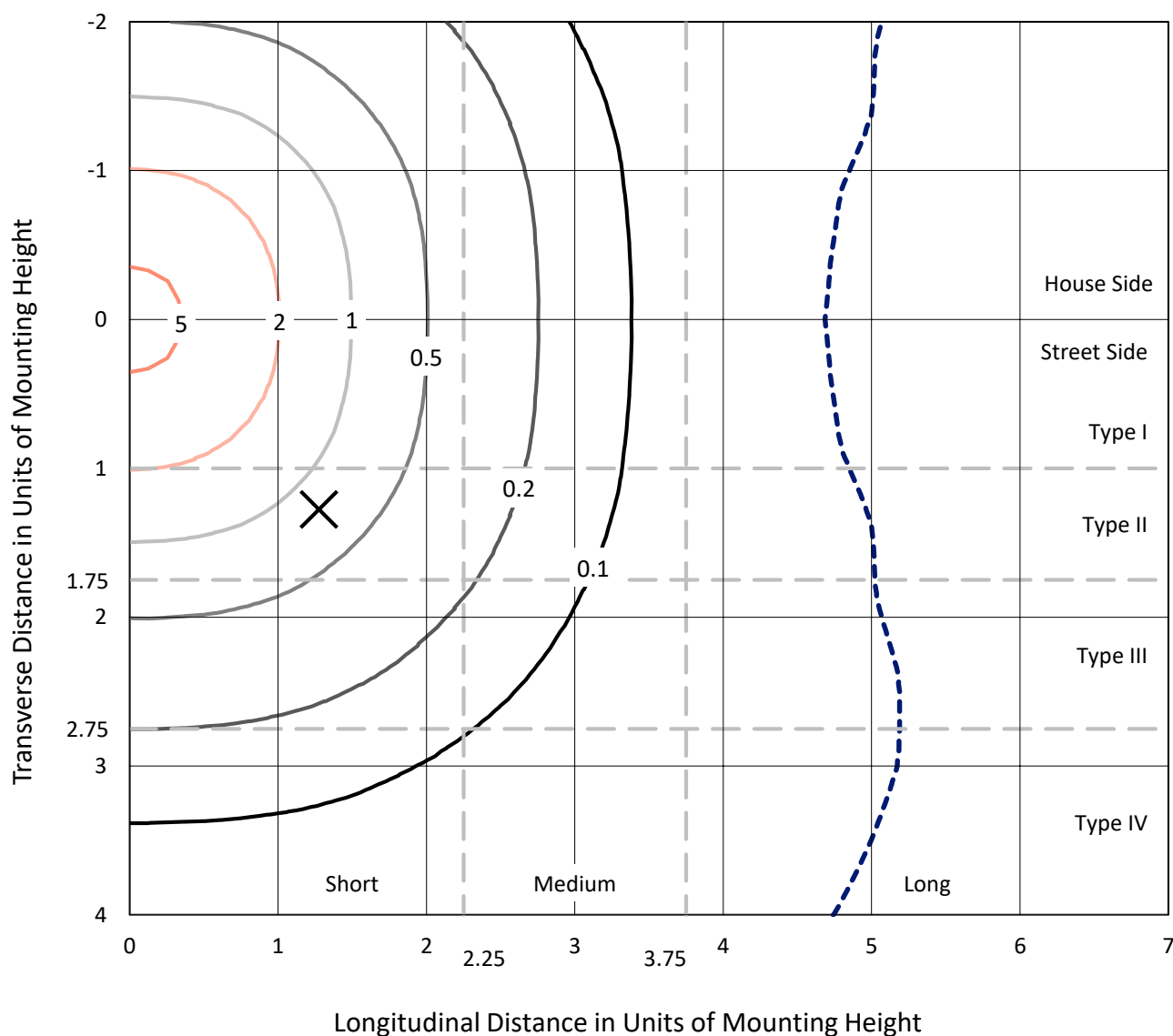
REPORT NUMBER: P198250

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-LWR-LW-UPL

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

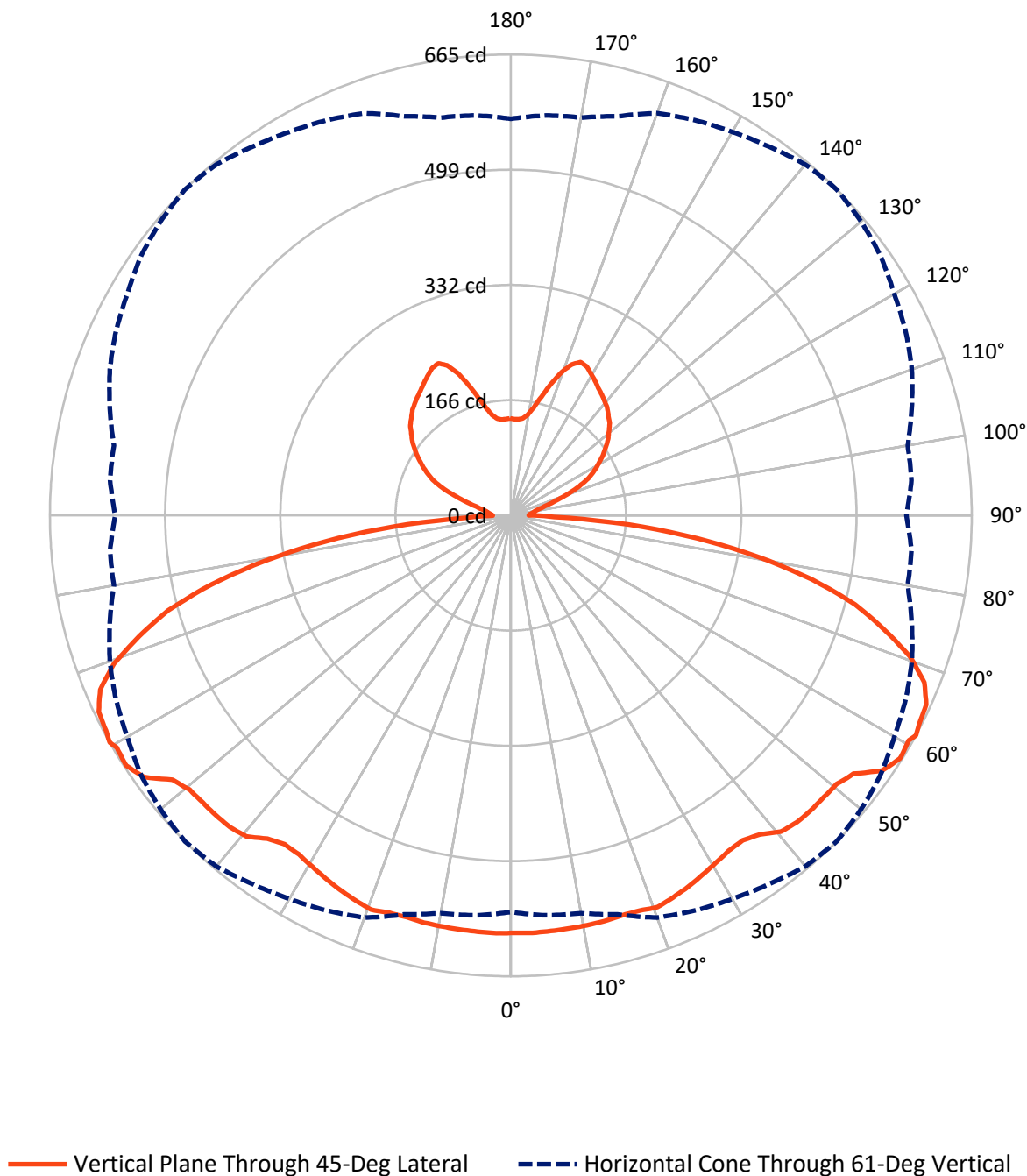


Based on 10 foot mounting height. Maximum calculated value = 6 fc
 Type V - Short - Non-Cutoff

REPORT NUMBER: P198250

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-LWR-LW-UPL

Luminous Intensity Polar Plot



REPORT NUMBER: P198250

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-LWR-LW-UPL

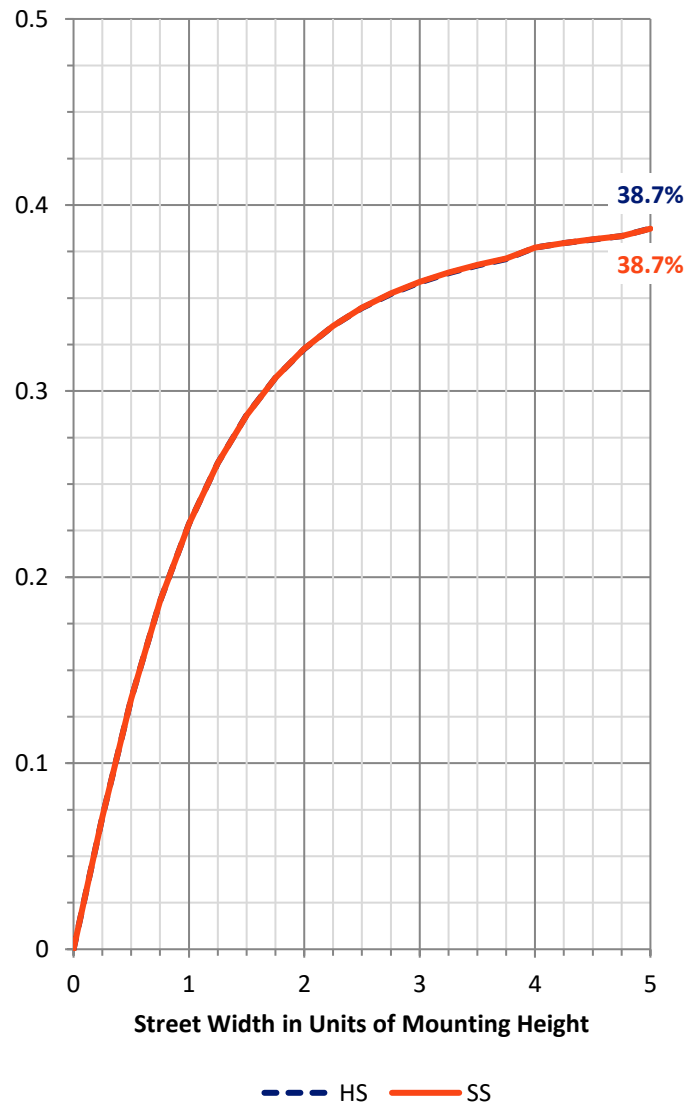
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1556.6	412.0	1968.6
	% Fixture	39.5	10.5	50.0
Street Side	Lumens	1556.6	412.0	1968.6
	% Fixture	39.5	10.5	50.0
Total	Lumens	3113.2	824.0	3937.1
	% Fixture	79.1	20.9	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.5	1.5
10°-20°	169.9	4.3
20°-30°	273.3	6.9
30°-40°	362.1	9.2
40°-50°	457.3	11.6
50°-60°	547.9	13.9
60°-70°	599.1	15.2
70°-80°	479.6	12.2
80°-90°	166.6	4.2
90°-100°	38.3	1.0
100°-110°	59.4	1.5
110°-120°	119.3	3.0
120°-130°	148.7	3.8
130°-140°	153.2	3.9
140°-150°	136.0	3.5
150°-160°	103.7	2.6
160°-170°	51.8	1.3
170°-180°	13.6	0.3
0°-90°	3113.2	79.1
0°-180°	3937.1	100.0

Coefficient of Utilization



REPORT NUMBER: P198250

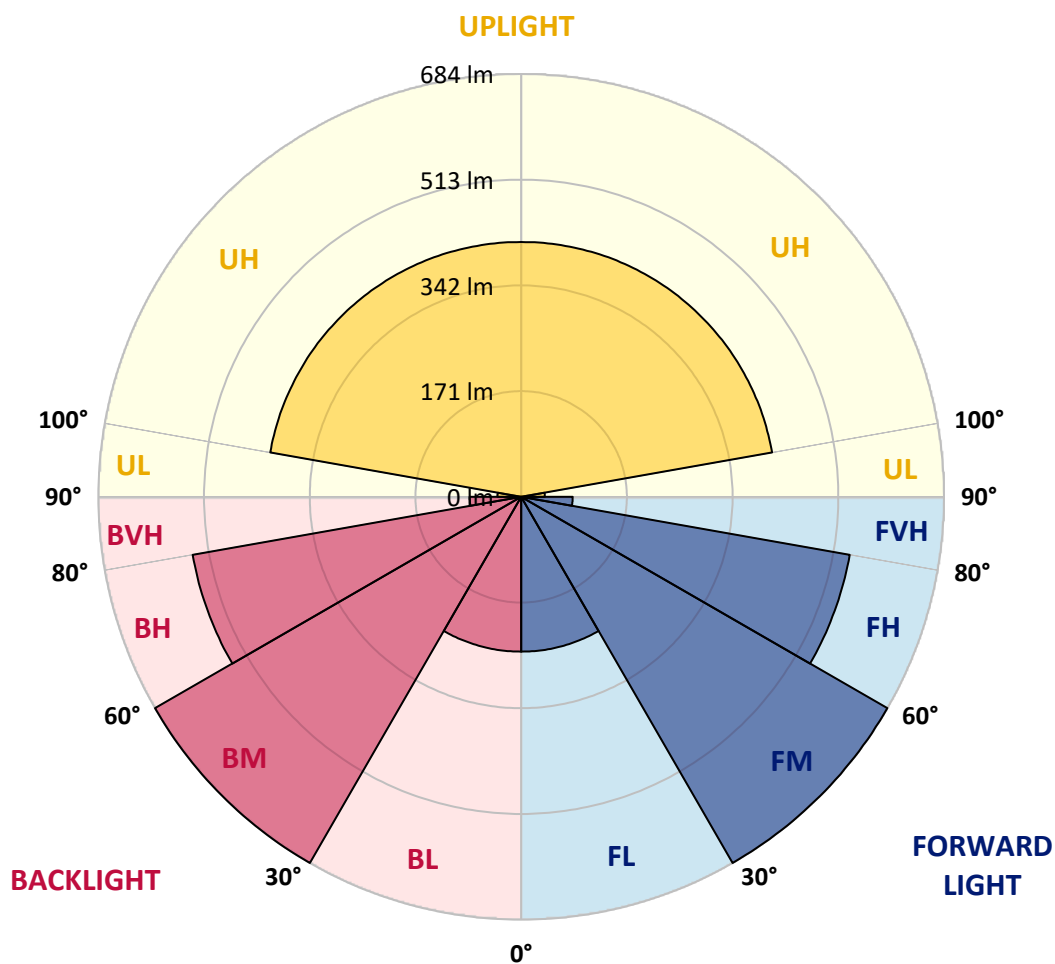
CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-LWR-LW-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	250.3	6.4			
FM	(30°-60°)	683.6	17.4			
FH	(60°-80°)	539.3	13.7			G0/660
FVH	(80°-90°)	83.3	2.1			G1/100
BL	(0°-30°)	250.3	6.4	B1/500		
BM	(30°-60°)	683.6	17.4	B1/1000		
BH	(60°-80°)	539.3	13.7	B2/1000		G0/660
BVH	(80°-90°)	83.3	2.1			G1/100
UL	(90°-100°)	38.3	1.0		U2/50	
UH	(100°-180°)	412.0	10.5		U3/500	

BUG Rating: B2-U4-G1

Type V Short



REPORT NUMBER: P198250

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-LWR-LW-UPL

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	602.3	602.3	602.3	602.3	602.3	602.3	602.3	602.3	602.3	602.3	602.3
2.5°	602.9	602.3	602.9	602.9	602.9	602.9	602.9	602.9	602.9	602.9	602.9
5°	602.3	602.3	602.3	602.3	602.3	602.3	602.3	602.3	602.3	602.3	602.3
7.5°	601.8	601.8	601.8	601.8	601.8	601.8	601.8	601.8	602.3	601.8	602.3
10°	600.6	600.6	600.6	600.6	601.2	601.2	601.2	601.2	601.2	601.2	601.2
12.5°	599.4	599.4	599.4	599.4	600.0	600.0	600.0	600.0	600.6	600.6	600.0
15°	598.3	597.7	597.7	598.3	598.3	598.8	598.8	598.8	599.4	598.8	598.8
17.5°	597.1	596.5	597.1	597.7	597.7	598.3	598.8	598.8	599.4	599.4	599.4
20°	598.8	598.3	598.8	599.4	600.0	601.2	601.8	602.3	602.9	603.4	603.4
22.5°	595.3	594.7	595.3	595.3	595.9	596.5	597.7	598.3	598.8	598.8	598.8
25°	590.1	590.1	590.7	590.7	591.3	591.9	592.5	593.1	593.1	593.7	593.1
27.5°	584.4	584.4	585.0	585.0	586.1	586.1	586.7	587.2	587.8	587.8	587.8
30°	577.4	577.4	578.0	578.6	579.7	580.3	580.9	581.4	582.0	582.0	582.0
32.5°	571.1	570.5	571.1	572.2	573.9	575.1	576.3	576.8	576.8	576.8	577.4
35°	565.8	566.4	567.6	568.7	571.1	572.2	573.3	575.1	575.7	575.7	575.7
37.5°	567.0	567.6	569.3	571.6	574.5	578.0	580.3	582.6	584.4	583.8	583.2
40°	574.5	575.7	578.6	582.0	586.7	591.3	594.7	597.7	599.4	600.0	599.4
42.5°	575.7	576.8	579.1	584.4	589.6	594.7	599.4	602.3	604.6	605.2	604.6
45°	575.1	575.1	578.6	584.4	589.6	594.7	600.6	604.6	606.9	606.9	606.9
47.5°	571.1	572.8	575.1	580.9	587.8	593.1	598.8	602.9	605.8	607.5	605.8
50°	571.1	571.1	575.1	579.1	585.5	594.7	602.9	606.9	609.9	609.3	609.9
52.5°	569.9	573.3	575.7	581.4	593.1	602.3	608.7	614.5	618.5	619.1	618.0
55°	580.3	580.9	586.1	597.1	608.1	618.5	630.1	638.8	645.7	649.8	644.0
57.5°	588.4	585.5	595.9	605.2	618.0	633.6	650.9	657.9	663.1	662.0	663.7
60°	577.4	581.4	589.0	598.8	619.1	634.7	644.0	651.5	657.9	659.6	657.4
61°	572.2	579.1	582.6	595.9	617.4	628.9	638.8	649.3	660.8	664.9	659.6
62.5°	563.5	574.5	573.3	594.7	608.1	621.4	640.0	652.1	660.2	661.4	660.2
65°	564.1	562.4	575.7	591.3	604.6	628.4	644.0	651.5	656.2	658.5	657.4
67.5°	545.6	539.7	555.9	567.0	589.6	608.1	623.2	634.1	641.1	643.4	640.6
70°	502.7	506.8	518.3	535.1	553.7	576.3	590.1	604.6	610.5	611.0	611.0
72.5°	461.6	463.9	475.5	491.1	512.5	532.2	546.2	557.7	563.0	563.5	564.6
75°	407.1	409.5	422.8	437.2	458.7	475.5	485.3	499.3	506.8	513.1	507.9
77.5°	344.0	348.1	358.5	374.2	393.8	403.1	420.5	436.7	441.9	443.6	441.9
80°	272.8	278.0	287.3	308.1	316.8	331.9	348.7	355.6	360.2	361.4	362.0
82.5°	196.3	200.4	210.2	224.7	234.5	246.7	258.3	267.0	272.2	271.1	270.5
85°	115.8	117.0	127.4	137.3	144.8	152.3	161.5	168.0	169.1	171.4	170.8
87.5°	34.8	35.4	40.0	45.2	48.7	52.1	57.9	65.5	67.1	62.5	63.1
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: P198250

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-LWR-LW-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: P198250

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-LWR-LW-UPL

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	602.3	602.3	602.3	602.3	602.3	602.3	602.3	602.3
2.5°	602.9	602.9	602.9	602.9	602.9	602.9	602.3	602.9
5°	602.3	602.3	602.3	602.3	602.3	602.3	602.3	602.3
7.5°	602.3	601.8	601.8	601.8	601.8	601.8	601.8	601.8
10°	601.2	601.2	601.2	601.2	600.6	600.6	600.6	600.6
12.5°	600.0	600.0	600.0	600.0	599.4	599.4	599.4	599.4
15°	598.8	598.8	598.8	598.8	598.3	598.3	598.3	598.3
17.5°	599.4	598.8	598.3	598.3	597.7	597.1	597.1	597.1
20°	602.9	602.3	601.2	600.0	599.4	598.8	598.8	598.8
22.5°	598.3	597.7	596.5	595.9	595.9	595.3	594.7	594.7
25°	593.1	591.9	591.9	591.3	591.3	590.1	590.1	589.6
27.5°	587.2	586.7	586.1	585.5	585.5	585.0	584.4	583.8
30°	582.0	580.9	579.7	579.1	578.6	578.0	578.0	578.0
32.5°	576.8	575.7	575.1	573.3	572.2	571.6	571.1	571.1
35°	575.1	573.3	572.2	570.5	568.7	567.6	567.0	565.8
37.5°	582.0	579.7	578.0	575.1	571.1	569.3	567.6	567.0
40°	597.1	594.7	591.3	586.7	582.0	578.6	575.7	574.5
42.5°	602.3	599.4	594.7	590.1	584.4	579.1	576.8	575.7
45°	604.0	601.2	594.7	589.0	583.8	579.1	575.7	574.5
47.5°	602.3	598.3	592.5	587.8	580.3	574.5	572.2	570.5
50°	606.4	602.9	595.3	585.0	578.6	575.1	571.1	570.5
52.5°	614.5	608.1	601.2	593.7	581.4	574.5	572.2	569.3
55°	638.8	630.1	618.0	605.8	598.3	587.2	580.3	580.3
57.5°	657.4	650.3	634.7	618.5	604.6	596.5	586.1	586.7
60°	652.1	642.8	635.3	619.1	599.4	588.4	584.4	576.8
61°	651.5	638.8	628.4	615.6	598.8	581.4	580.3	570.5
62.5°	652.7	641.1	621.4	608.1	595.3	572.8	572.2	563.0
65°	651.5	640.6	630.7	605.8	588.4	579.1	559.5	567.0
67.5°	633.6	623.8	605.8	591.9	565.2	553.7	542.7	542.7
70°	605.2	590.7	573.3	555.9	538.0	518.3	508.5	502.7
72.5°	557.7	545.6	531.7	513.1	491.1	473.2	463.9	459.9
75°	498.1	484.7	472.6	458.7	435.5	420.5	410.6	407.7
77.5°	435.5	423.9	402.5	389.2	373.6	356.2	347.5	344.0
80°	355.6	349.2	334.2	312.7	305.2	283.8	278.0	272.8
82.5°	267.0	260.0	246.2	231.1	221.8	209.6	199.2	198.1
85°	168.0	163.3	154.6	143.6	132.0	125.1	115.8	118.1
87.5°	62.5	59.6	54.4	47.5	42.3	37.6	33.0	34.8
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: P198250

CATALOG NUMBER: TT-C1-LED-E1-MQ-CG-LWR-LW-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)