

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: P198293

Luminaire Tested: **TT-C1-LED-E1-WQ-SG-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198293
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-WQ-SG-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH SOFTENING GLASS LENS
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4254.7 lumens
Efficiency: N/A
Efficacy: 93.7 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



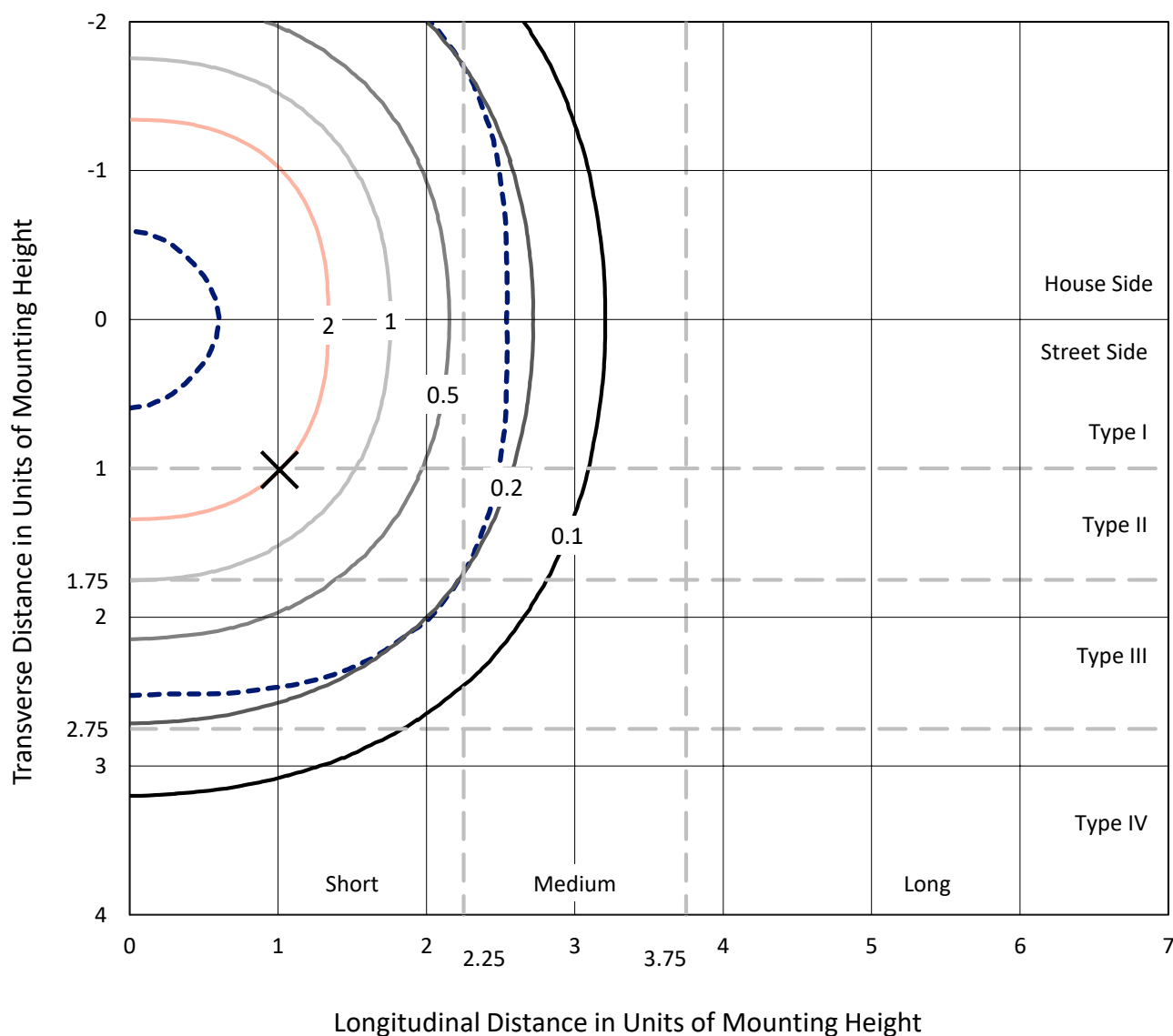
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

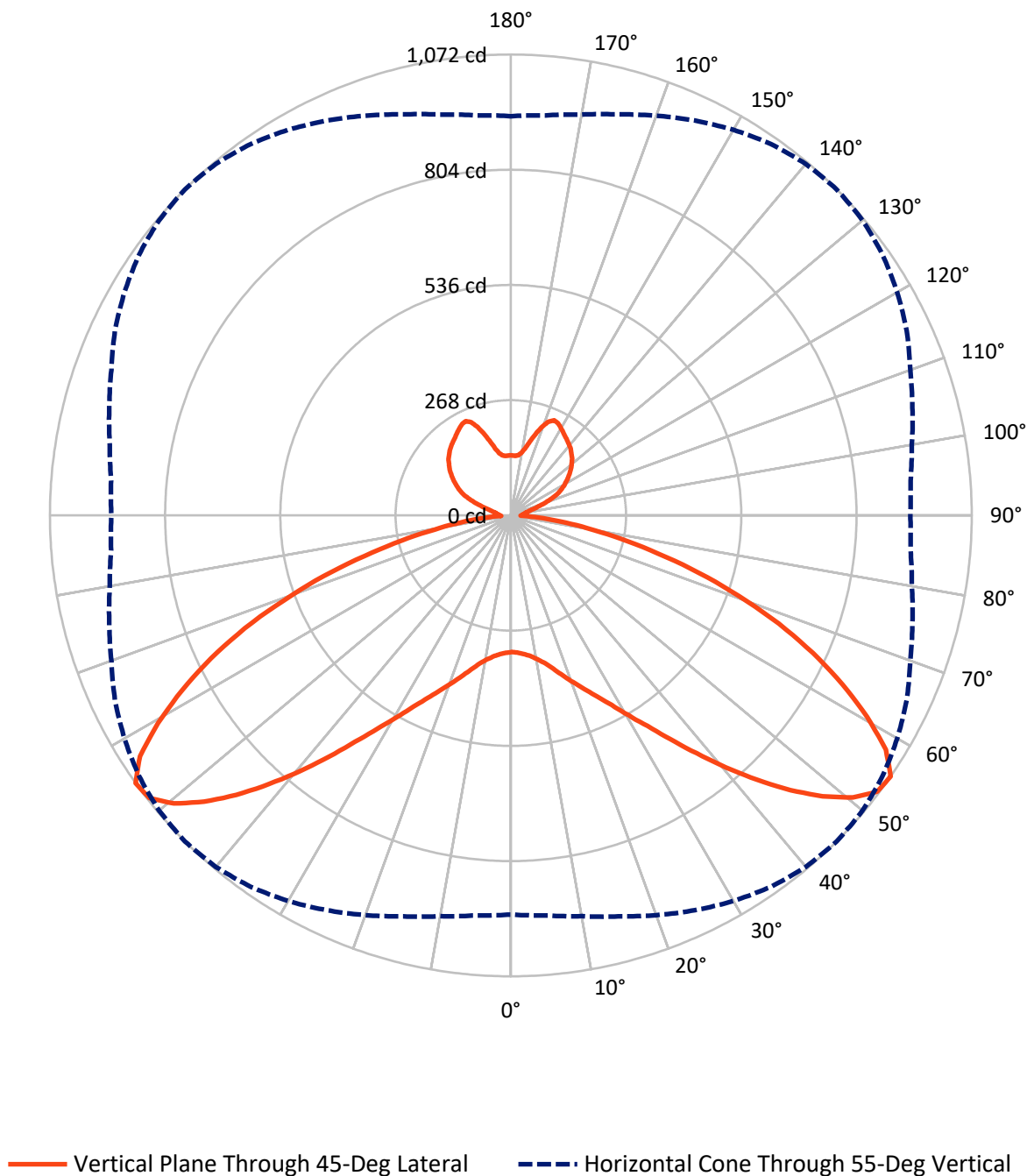


Based on 10 foot mounting height. Maximum calculated value = 3.5 fc
Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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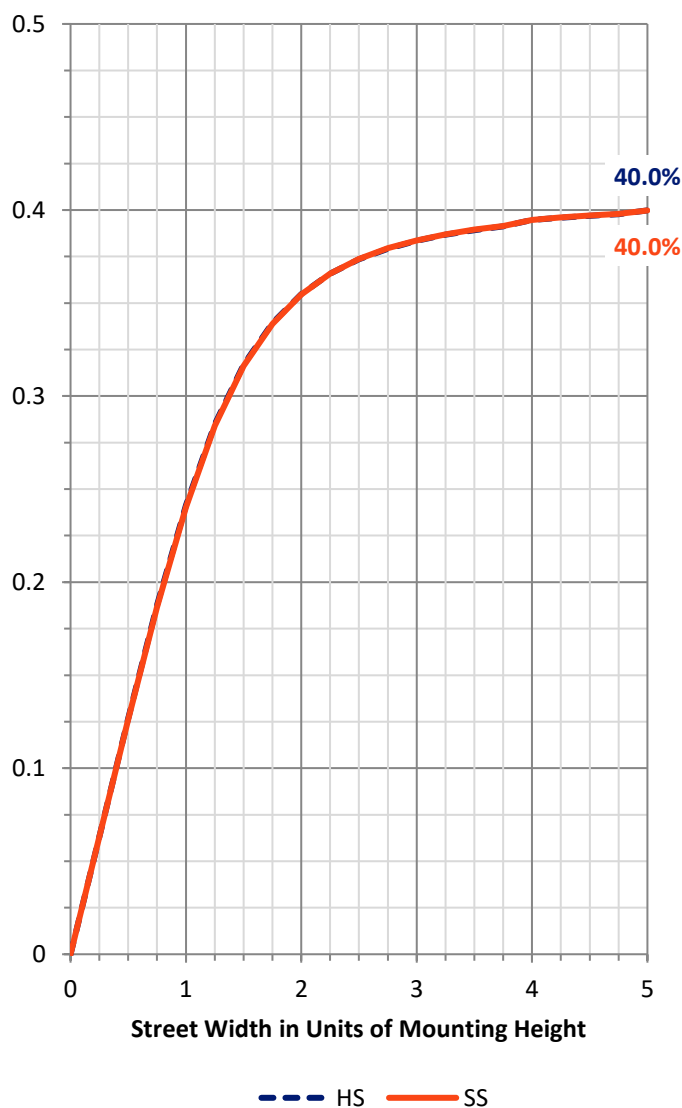
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1715.3	412.0	2127.3
	% Fixture	40.3	9.7	50.0
Street Side	Lumens	1715.3	412.0	2127.3
	% Fixture	40.3	9.7	50.0
Total	Lumens	3430.7	824.0	4254.7
	% Fixture	80.6	19.4	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.4	0.7
10°-20°	106.4	2.5
20°-30°	216.6	5.1
30°-40°	395.5	9.3
40°-50°	671.6	15.8
50°-60°	874.6	20.6
60°-70°	707.4	16.6
70°-80°	347.6	8.2
80°-90°	79.6	1.9
90°-100°	38.3	0.9
100°-110°	59.4	1.4
110°-120°	119.3	2.8
120°-130°	148.7	3.5
130°-140°	153.2	3.6
140°-150°	136.0	3.2
150°-160°	103.7	2.4
160°-170°	51.8	1.2
170°-180°	13.6	0.3
0°-90°	3430.7	80.6
0°-180°	4254.7	100.0

Coefficient of Utilization



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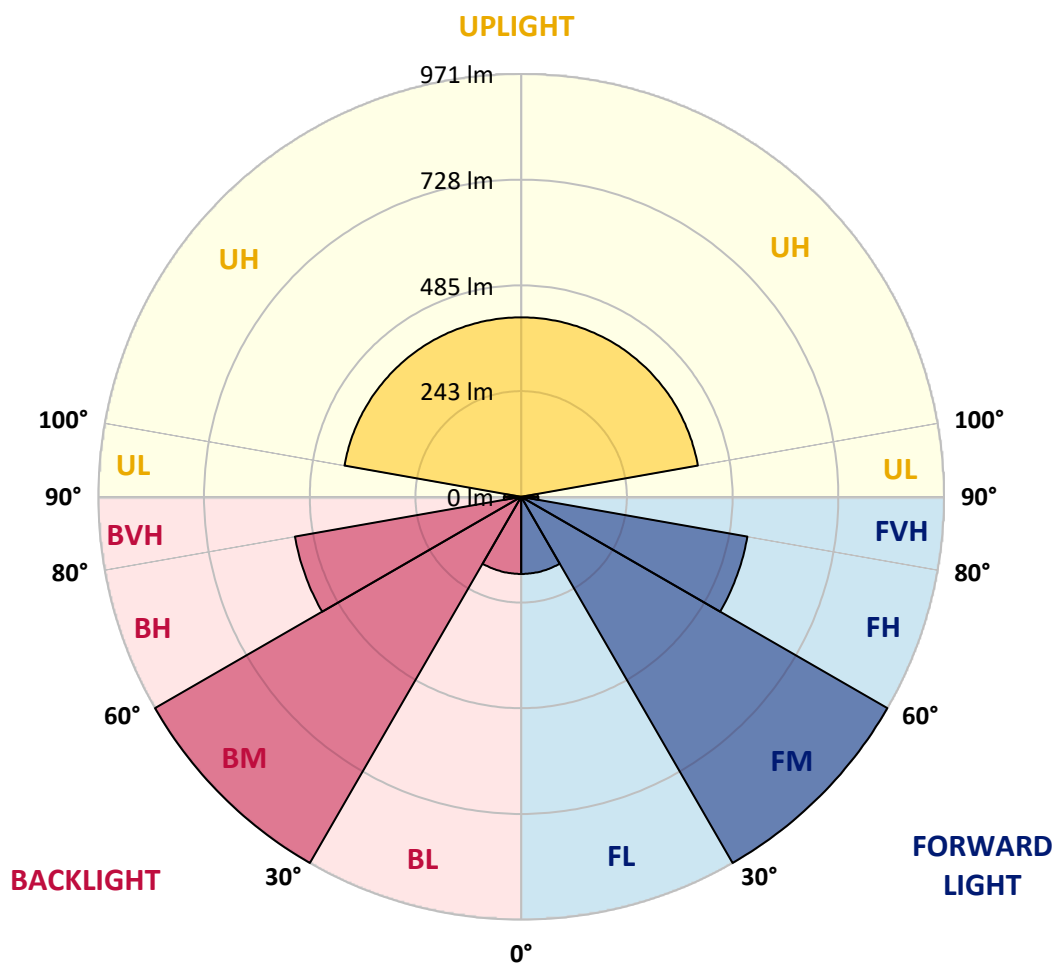
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	177.2	4.2			
FM	(30°-60°)	970.9	22.8			
FH	(60°-80°)	527.5	12.4			G0/660
FVH	(80°-90°)	39.8	0.9			G1/100
BL	(0°-30°)	177.2	4.2	B1/500		
BM	(30°-60°)	970.9	22.8	B1/1000		
BH	(60°-80°)	527.5	12.4	B2/1000		G0/660
BVH	(80°-90°)	39.8	0.9			G1/100
UL	(90°-100°)	38.3	0.9		U2/50	
UH	(100°-180°)	412.0	9.7		U3/500	

BUG Rating: B2-U4-G1

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	317.5	317.5	317.5	317.5	317.5	317.5	317.5	317.5	317.5	317.5	317.5
2.5°	318.9	318.9	318.9	318.9	318.9	318.9	319.6	319.6	319.6	319.6	319.6
5°	323.1	323.1	323.1	323.8	323.8	323.8	323.8	323.8	323.8	323.8	323.8
7.5°	329.4	328.7	329.4	329.4	329.4	330.1	330.1	329.4	330.1	330.1	330.1
10°	338.5	337.8	338.5	338.5	338.5	339.2	339.2	339.2	339.2	339.9	339.9
12.5°	351.8	351.1	351.8	352.5	351.8	352.5	352.5	352.5	352.5	352.5	352.5
15°	368.6	367.9	368.6	369.3	368.6	370.0	370.0	369.3	369.3	370.0	370.0
17.5°	389.0	387.6	388.3	389.0	389.0	390.4	390.4	389.7	390.4	391.1	390.4
20°	410.0	408.6	409.3	411.4	411.4	412.1	413.5	412.8	413.5	414.2	413.5
22.5°	433.1	432.4	433.1	435.2	435.2	435.9	438.0	438.0	438.0	438.7	438.0
25°	458.3	457.6	458.3	460.5	460.5	461.9	464.7	464.7	465.4	466.1	465.4
27.5°	487.8	487.1	488.5	490.6	491.3	493.4	496.9	497.6	498.3	499.0	497.6
30°	522.1	520.7	522.8	526.3	527.7	530.5	534.7	536.1	536.8	538.9	537.5
32.5°	561.4	560.0	562.8	567.0	569.1	573.3	578.9	580.3	582.4	583.8	581.7
35°	607.6	606.9	609.7	616.0	619.5	624.4	632.2	634.3	635.7	638.5	635.7
37.5°	658.8	658.1	663.0	670.0	676.3	684.0	692.4	695.9	698.0	701.5	698.0
40°	715.6	714.9	721.2	729.6	737.3	747.1	757.6	762.5	766.7	770.2	766.0
42.5°	773.7	773.7	781.4	790.5	801.8	813.7	825.6	831.2	838.2	840.3	835.4
45°	829.8	830.5	838.2	849.4	865.5	881.0	894.3	901.3	909.0	911.1	904.8
47.5°	883.1	883.8	890.8	905.5	923.7	941.2	957.3	967.2	974.9	975.6	970.7
50°	926.5	929.3	938.4	951.7	970.7	988.9	1008.5	1021.1	1028.8	1030.9	1026.0
52.5°	943.3	948.2	958.7	975.6	997.3	1016.2	1037.9	1054.1	1063.2	1066.7	1062.5
55°	927.9	933.5	946.1	965.1	988.9	1012.7	1035.1	1054.1	1066.7	1071.6	1067.4
57.5°	893.6	894.3	906.9	925.8	947.5	972.1	993.8	1011.3	1023.2	1028.1	1027.4
60°	834.0	834.0	845.9	864.1	881.0	906.2	924.4	937.7	946.1	951.7	950.3
62.5°	754.1	754.1	764.6	783.5	800.4	822.1	839.6	853.6	859.2	865.5	866.9
65°	665.1	665.1	674.9	693.8	709.2	728.9	745.7	759.0	764.6	772.3	770.9
67.5°	570.5	569.8	578.9	595.0	609.7	628.0	644.1	656.7	663.0	672.1	665.8
70°	473.1	473.1	480.8	493.4	503.9	522.1	537.5	550.2	555.1	562.8	559.3
72.5°	380.6	379.9	386.2	396.0	404.4	420.5	429.6	443.6	447.8	458.3	452.7
75°	297.2	295.8	300.7	307.7	313.3	323.8	330.8	342.0	345.5	352.5	349.7
77.5°	223.6	222.9	225.0	229.9	234.1	242.5	245.3	250.9	253.7	260.7	255.1
80°	160.5	158.4	160.5	163.3	164.7	171.0	171.7	173.8	175.2	180.1	174.5
82.5°	107.9	105.1	106.5	108.6	108.6	112.1	112.8	112.1	114.9	116.3	113.5
85°	61.7	59.6	60.3	61.7	61.0	63.1	63.1	62.4	64.5	64.5	63.1
87.5°	20.3	18.9	19.6	20.3	20.3	21.0	21.7	21.0	22.4	22.4	21.0
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
110°	86.0	86.0	87.0	89.0	86.0	85.0	85.0	86.0	86.0	87.0	86.0

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
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

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CATALOG NUMBER: TT-C1-LED-E1-WQ-SG-UPL

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	317.5	317.5	317.5	317.5	317.5	317.5	317.5	317.5
2.5°	319.6	319.6	319.6	319.6	319.6	319.6	319.6	319.6
5°	323.8	323.8	323.8	323.8	323.8	323.1	323.1	323.1
7.5°	330.1	330.1	330.1	330.1	330.1	329.4	329.4	329.4
10°	339.9	339.2	339.2	339.2	339.2	338.5	339.2	338.5
12.5°	352.5	353.2	353.2	352.5	353.2	351.8	351.8	351.8
15°	370.0	369.3	369.3	369.3	369.3	368.6	368.6	368.6
17.5°	389.7	389.7	389.0	389.0	388.3	387.6	387.6	387.6
20°	412.8	412.1	411.4	410.7	410.0	408.6	407.9	407.9
22.5°	436.6	435.9	435.2	434.5	433.8	432.4	431.0	431.0
25°	463.3	461.9	461.2	459.7	458.3	456.9	456.2	455.5
27.5°	495.5	494.1	492.0	489.9	487.1	486.4	485.0	485.0
30°	534.0	531.9	529.1	525.6	522.8	520.0	518.6	517.9
32.5°	578.9	576.1	571.2	567.0	562.1	559.3	557.2	555.8
35°	631.5	627.3	621.6	615.3	609.0	604.1	600.6	600.6
37.5°	693.1	686.8	678.4	670.7	661.6	656.0	651.8	649.0
40°	760.4	751.3	740.8	731.0	720.5	712.8	706.4	707.1
42.5°	827.0	819.3	806.7	794.8	781.4	770.9	763.2	762.5
45°	897.1	887.3	871.8	856.4	841.0	828.4	819.3	817.9
47.5°	962.3	951.7	933.5	914.6	897.8	883.8	873.9	872.5
50°	1015.5	1002.9	984.0	963.7	945.4	930.0	919.5	916.7
52.5°	1049.9	1035.8	1015.5	991.0	971.4	953.8	941.2	937.7
55°	1055.5	1037.2	1015.5	988.2	966.5	946.8	932.8	928.6
57.5°	1016.9	997.3	977.7	953.8	932.1	911.1	899.9	894.3
60°	941.9	926.5	910.4	888.7	871.1	851.5	842.4	839.6
62.5°	855.7	842.4	827.7	805.3	790.5	773.0	764.6	761.1
65°	763.2	747.8	733.8	715.6	699.4	684.7	672.8	671.4
67.5°	660.9	644.8	632.9	616.7	600.6	586.6	578.9	574.7
70°	553.0	539.6	527.7	510.2	499.7	486.4	480.8	476.6
72.5°	445.7	438.0	423.3	412.1	400.2	389.7	386.2	382.0
75°	344.8	335.7	324.5	317.5	308.4	302.8	300.0	297.2
77.5°	253.0	245.3	239.0	236.2	232.0	226.4	224.3	222.2
80°	175.2	171.7	167.5	166.8	164.0	159.8	159.1	158.4
82.5°	113.5	111.4	110.0	110.0	108.6	105.8	105.1	105.1
85°	63.1	62.4	63.1	62.4	61.0	59.6	59.6	59.6
87.5°	21.0	21.0	21.7	22.4	20.3	20.3	19.6	19.6
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
110°	84.0	83.0	84.0	81.0	78.0	76.0	74.0	75.0

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
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)