

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: P198355

Luminaire Tested: **TT-C2-LED-E1-WQ-SG-LWR-LW-8030-UPL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198355
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-C2-LED-E1-WQ-SG-LWR-LW-8030-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE DISTRIBUTION WITH SOFTENING GLASS LENS AND LumaWatt WIRELESS SENSOR
Light Source: (168) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4125.8 lumens
Efficiency: N/A
Efficacy: 80.3 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): 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

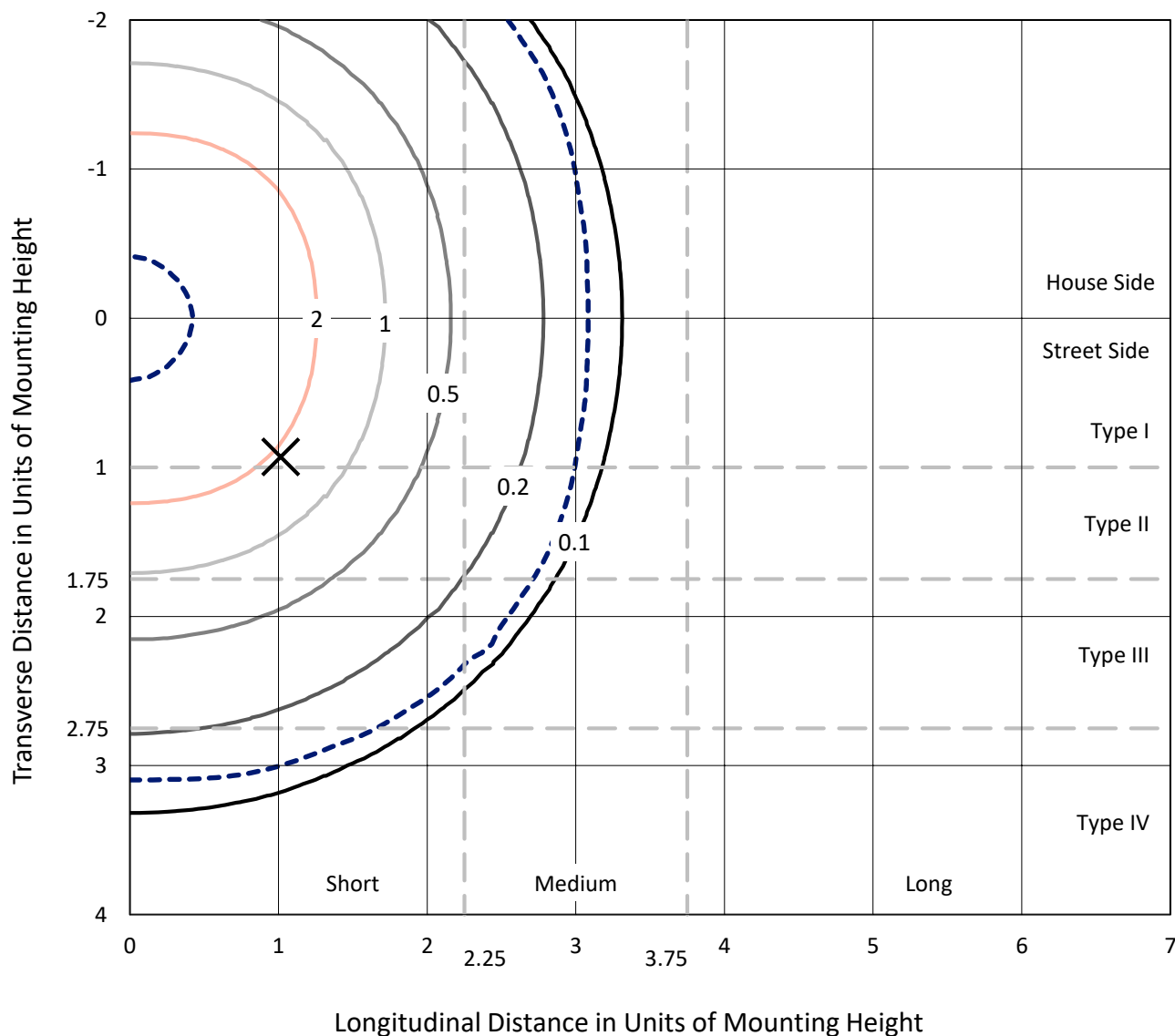


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

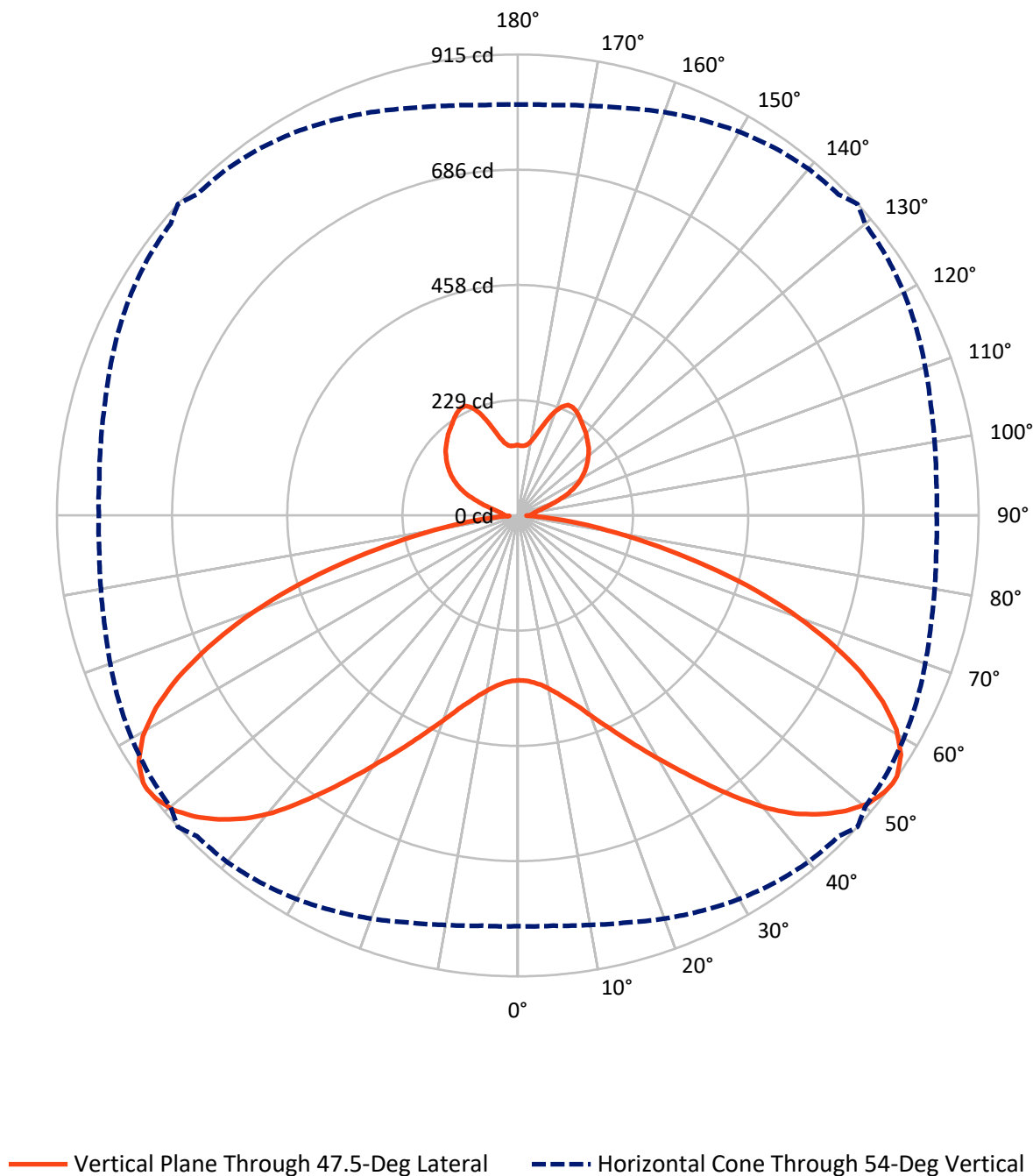


Based on 10 foot mounting height. Maximum calculated value = 3.6 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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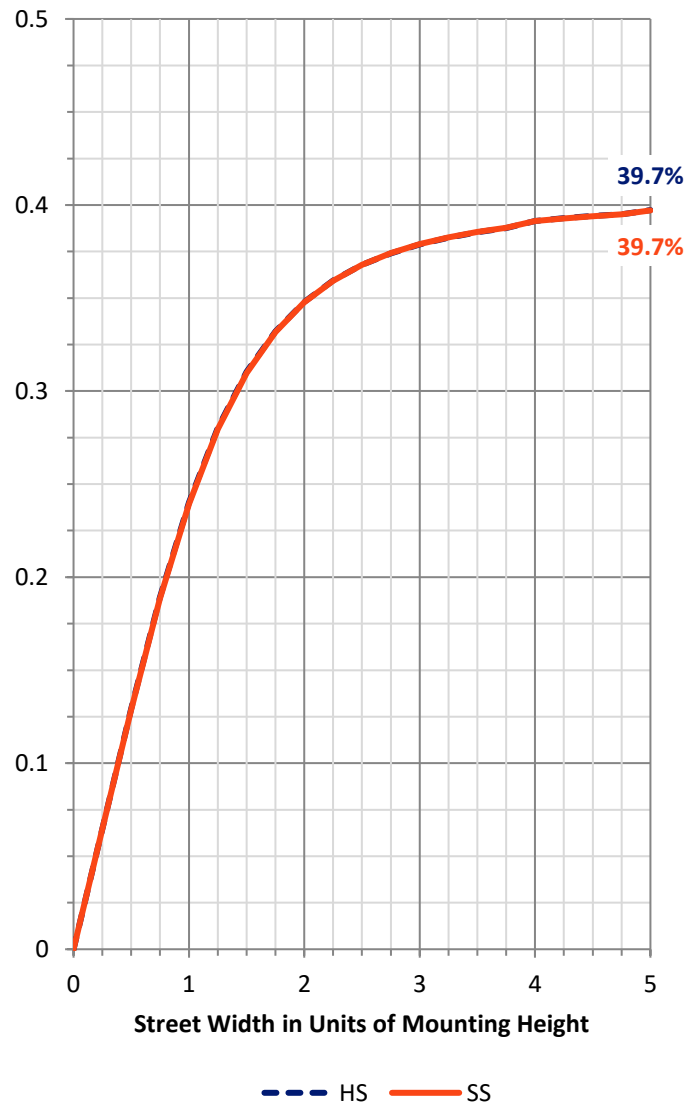
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1650.9	412.0	2062.9
	% Fixture	40.0	10.0	50.0
Street Side	Lumens	1650.9	412.0	2062.9
	% Fixture	40.0	10.0	50.0
Total	Lumens	3301.8	824.0	4125.8
	% Fixture	80.0	20.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.3	0.8
10°-20°	109.6	2.7
20°-30°	225.6	5.5
30°-40°	403.5	9.8
40°-50°	619.0	15.0
50°-60°	763.2	18.5
60°-70°	690.5	16.7
70°-80°	380.2	9.2
80°-90°	77.9	1.9
90°-100°	38.3	0.9
100°-110°	59.4	1.4
110°-120°	119.3	2.9
120°-130°	148.7	3.6
130°-140°	153.2	3.7
140°-150°	136.0	3.3
150°-160°	103.7	2.5
160°-170°	51.8	1.3
170°-180°	13.6	0.3
0°-90°	3301.8	80.0
0°-180°	4125.8	100.0

Coefficient of Utilization



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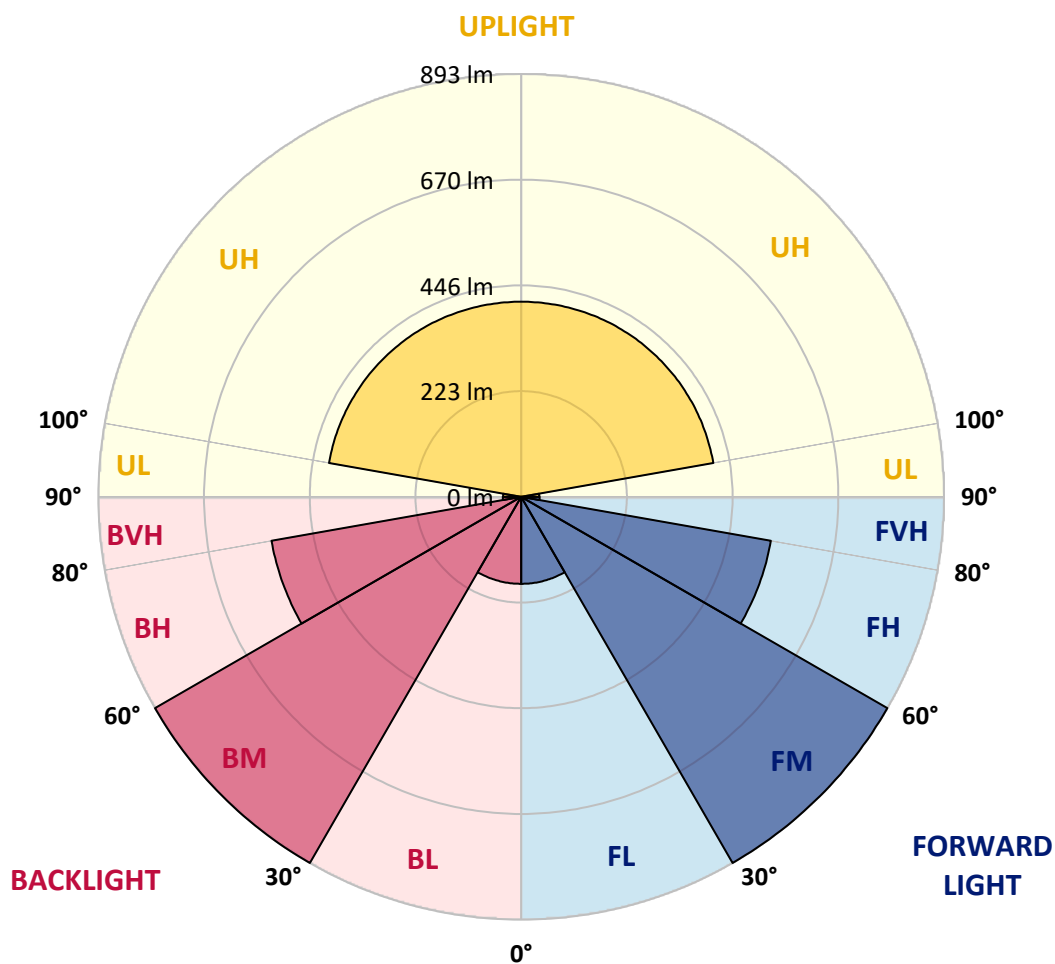
CATALOG NUMBER: TT-C2-LED-E1-WQ-SG-LWR-LW-8030-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	183.8	4.5			
FM	(30°-60°)	892.9	21.6			
FH	(60°-80°)	535.3	13.0			G0/660
FVH	(80°-90°)	39.0	0.9			G1/100
BL	(0°-30°)	183.8	4.5	B1/500		
BM	(30°-60°)	892.9	21.6	B1/1000		
BH	(60°-80°)	535.3	13.0	B2/1000		G0/660
BVH	(80°-90°)	39.0	0.9			G1/100
UL	(90°-100°)	38.3	0.9		U2/50	
UH	(100°-180°)	412.0	10.0		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°	47.5°
0°	327.4	327.4	327.4	327.4	327.4	327.4	327.4	327.4	327.4	327.4	327.4
2.5°	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8
5°	333.1	333.1	333.1	333.8	333.1	333.1	333.1	333.1	333.1	333.1	333.1
7.5°	340.2	340.2	340.2	340.2	340.2	340.2	339.5	339.5	340.2	339.5	340.2
10°	350.2	349.5	349.5	350.2	350.2	349.5	350.2	350.2	350.2	350.2	350.9
12.5°	363.0	363.0	363.7	363.7	363.7	364.4	364.4	363.7	364.4	364.4	364.4
15°	380.1	380.1	380.1	380.1	380.8	381.5	380.8	380.8	380.1	380.1	381.5
17.5°	400.0	400.0	400.0	400.0	401.4	401.4	400.7	401.4	402.2	402.2	401.4
20°	424.2	423.5	422.8	423.5	424.9	424.9	425.6	426.4	426.4	426.4	427.8
22.5°	449.8	449.1	450.6	451.3	452.0	452.7	452.7	453.4	454.8	454.1	456.2
25°	478.3	477.6	478.3	479.7	482.6	482.6	483.3	484.7	484.7	484.0	489.0
27.5°	510.3	510.3	511.1	513.9	514.6	515.3	517.5	518.9	521.0	521.0	525.3
30°	545.2	544.5	545.9	548.8	550.9	553.0	555.9	559.5	560.2	560.9	565.1
32.5°	580.8	580.8	582.2	587.2	590.8	594.3	598.6	602.2	603.6	603.6	610.0
35°	618.5	619.2	622.8	626.4	633.5	637.7	642.0	647.0	649.8	651.3	659.8
37.5°	658.4	660.5	663.4	668.4	675.5	682.6	689.0	696.8	701.1	702.5	711.8
40°	696.1	699.0	703.2	710.3	717.5	727.4	735.3	743.1	748.1	750.9	765.2
42.5°	733.1	734.5	739.5	747.4	756.6	765.9	776.5	785.1	790.1	794.3	810.0
45°	762.3	763.7	770.1	779.4	790.1	801.5	812.1	822.1	827.1	830.6	846.3
47.5°	786.5	789.4	796.5	805.7	816.4	829.9	842.0	852.0	858.4	860.5	876.9
50°	804.3	808.6	815.0	825.7	838.5	852.0	864.8	875.5	882.6	885.4	900.4
52.5°	814.3	817.8	824.9	835.6	850.6	864.1	877.6	888.3	896.1	899.0	912.5
54°	815.7	817.8	825.7	837.0	852.0	866.2	879.7	890.4	898.3	901.1	915.3
55°	814.3	815.7	824.2	834.9	850.6	864.8	878.3	889.0	897.5	900.4	913.9
57.5°	800.0	802.2	809.3	820.7	834.9	851.3	864.1	874.8	883.3	884.7	897.5
60°	770.8	773.7	780.1	792.2	806.4	820.7	833.5	842.7	850.6	854.8	864.1
62.5°	728.9	730.3	736.7	747.4	760.2	775.1	785.1	794.3	801.5	805.7	813.6
65°	669.1	675.5	680.5	689.0	699.0	711.1	723.9	731.0	734.5	741.7	747.4
67.5°	602.2	606.4	611.4	619.2	625.6	633.5	645.6	652.0	656.3	661.2	666.2
70°	527.4	526.0	531.7	536.0	543.1	548.1	555.9	559.5	564.4	567.3	575.8
72.5°	438.5	440.6	445.6	450.6	452.7	454.1	460.5	462.7	466.9	465.5	476.2
75°	358.0	354.5	355.9	356.6	358.0	356.6	360.9	363.0	365.1	363.0	368.7
77.5°	270.5	266.2	267.6	266.9	266.9	265.5	264.8	264.8	265.5	264.1	267.6
80°	186.5	184.3	185.1	186.5	182.9	183.6	179.4	179.4	179.4	179.4	180.8
82.5°	115.3	112.5	111.7	112.5	112.5	110.3	111.0	108.2	107.5	106.8	113.2
85°	56.2	54.8	56.2	54.8	54.1	54.1	52.7	53.4	52.0	51.2	55.5
87.5°	14.9	14.2	14.2	14.2	13.5	14.2	14.2	14.2	14.2	14.9	17.1
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	32.5
100°	45.0	45.0	45.0	44.0	42.0	40.0	39.0	38.0	36.0	36.0	35.5
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

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CATALOG NUMBER: TT-C2-LED-E1-WQ-SG-LWR-LW-8030-UPL

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
110°	86.0	86.0	87.0	89.0	86.0	85.0	85.0	86.0	86.0	87.0	86.5
112.5°	101.0	102.0	104.0	108.0	106.0	107.0	107.0	110.0	108.0	107.0	105.0
115°	121.0	122.0	123.0	128.0	126.0	128.0	127.0	129.0	126.0	124.0	122.0
117.5°	140.0	141.0	141.0	144.0	141.0	141.0	140.0	141.0	138.0	136.0	135.5
120°	152.0	153.0	154.0	155.0	151.0	149.0	147.0	149.0	147.0	147.0	147.5
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	167.5
127.5°	177.0	177.0	179.0	181.0	177.0	171.0	170.0	176.0	177.0	178.0	176.5
130°	187.0	188.0	190.0	191.0	185.0	179.0	179.0	186.0	187.0	186.0	184.5
132.5°	198.0	199.0	200.0	201.0	193.0	186.0	187.0	193.0	195.0	195.0	193.0
135°	210.0	210.0	211.0	209.0	199.0	192.0	193.0	199.0	202.0	201.0	199.0
137.5°	221.0	219.0	217.0	213.0	203.0	197.0	198.0	205.0	207.0	208.0	205.5
140°	229.0	226.0	222.0	216.0	205.0	200.0	201.0	207.0	210.0	213.0	212.5
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	224.0
147.5°	230.0	227.0	223.0	219.0	210.0	207.0	209.0	216.0	220.0	229.0	231.0
150°	224.0	221.0	219.0	220.0	215.0	214.0	216.0	222.0	227.0	235.0	237.0
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	241.0
157.5°	203.0	203.0	207.0	216.0	220.0	224.0	229.0	234.0	232.0	235.0	232.5
160°	199.0	198.0	203.0	210.0	212.0	213.0	216.0	219.0	216.0	219.0	217.5
162.5°	185.0	184.0	188.0	193.0	194.0	193.0	196.0	198.0	195.0	198.0	197.0
165°	169.0	167.0	169.0	173.0	173.0	173.0	175.0	176.0	174.0	177.0	176.0
167.5°	154.0	152.0	153.0	156.0	156.0	155.0	157.0	159.0	157.0	159.0	158.5
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	140.5
175°	136.0	134.0	135.0	137.0	137.0	137.0	138.0	139.0	138.0	139.0	138.5
177.5°	137.0	136.0	136.0	139.0	138.0	138.0	139.0	140.0	139.0	139.0	138.5
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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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
0°	327.4	327.4	327.4	327.4	327.4	327.4	327.4	327.4	327.4
2.5°	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.8	328.1
5°	333.1	333.1	333.1	333.1	333.1	333.1	333.1	333.1	333.1
7.5°	340.2	340.2	339.5	339.5	339.5	339.5	339.5	339.5	339.5
10°	350.2	350.9	349.5	349.5	350.2	349.5	349.5	348.8	348.8
12.5°	364.4	363.7	364.4	364.4	363.7	363.0	362.3	361.6	362.3
15°	380.8	380.1	380.1	380.1	379.4	379.4	378.7	379.4	378.7
17.5°	400.7	400.7	401.4	399.3	400.0	398.6	398.6	398.6	397.9
20°	426.4	425.6	424.9	422.8	423.5	422.1	421.4	420.7	419.9
22.5°	454.1	452.7	452.0	449.8	450.6	449.1	447.0	445.6	445.6
25°	484.7	483.3	481.9	481.2	480.4	477.6	476.2	474.0	475.5
27.5°	521.0	518.2	516.0	513.2	513.9	510.3	508.9	507.5	507.5
30°	560.2	558.0	554.5	552.3	551.6	548.1	545.2	543.8	543.1
32.5°	602.9	601.4	599.3	595.8	594.3	588.6	586.5	584.4	583.7
35°	653.4	649.8	647.7	642.7	637.7	634.2	629.2	627.8	626.4
37.5°	700.4	700.4	696.8	691.1	684.0	679.0	674.8	671.9	669.8
40°	750.2	748.8	743.1	738.1	731.0	723.9	716.0	713.2	711.8
42.5°	794.3	791.5	785.8	779.4	772.3	763.7	755.2	750.9	750.2
45°	831.3	827.8	822.1	813.6	804.3	795.8	787.9	783.7	781.5
47.5°	861.2	857.0	849.9	842.0	831.3	821.4	813.6	809.3	806.4
50°	883.3	879.7	871.9	862.0	851.3	839.9	832.1	827.1	824.9
52.5°	897.5	892.6	884.0	873.3	861.2	849.9	840.6	834.9	832.8
54°	900.4	894.7	885.4	874.1	861.2	849.1	840.6	834.2	832.1
55°	899.0	893.3	883.3	872.6	859.1	847.0	837.8	831.3	829.2
57.5°	884.0	877.6	868.4	857.0	842.7	830.6	822.1	815.0	812.8
60°	852.0	846.3	835.6	825.7	811.4	799.3	790.1	782.9	780.8
62.5°	802.9	797.9	788.6	778.7	763.7	753.1	743.8	739.5	733.8
65°	737.4	733.8	724.6	712.5	701.8	691.1	681.9	679.0	675.5
67.5°	659.1	654.1	650.6	638.5	629.9	620.0	610.7	605.0	603.6
70°	566.6	564.4	560.9	549.5	544.5	536.0	529.6	524.6	523.2
72.5°	466.9	464.8	464.1	458.4	452.0	444.1	441.3	437.0	436.3
75°	363.0	361.6	363.0	358.7	356.6	354.5	353.0	353.0	350.9
77.5°	262.6	264.8	265.5	265.5	266.9	266.9	268.3	266.2	264.1
80°	178.7	180.8	180.1	181.5	180.8	185.8	182.2	185.1	182.2
82.5°	107.5	110.3	110.3	110.3	113.2	112.5	112.5	113.9	113.2
85°	52.7	53.4	52.7	52.0	55.5	54.8	54.8	54.1	54.8
87.5°	15.7	14.2	14.9	13.5	14.9	12.8	14.2	14.2	14.9
90°	26.0	28.0	30.0	32.0	33.0	34.0	34.0	34.0	34.0
92.5°	27.0	28.0	30.0	32.0	33.0	35.0	36.0	36.0	36.0
95°	30.0	30.0	32.0	34.0	35.0	37.0	38.0	39.0	38.0
97.5°	32.0	33.0	34.0	34.0	35.0	36.0	36.0	36.0	36.0
100°	35.0	36.0	37.0	38.0	38.0	38.0	38.0	37.0	37.0
102.5°	42.0	43.0	44.0	44.0	42.0	42.0	41.0	41.0	41.0
105°	52.0	54.0	54.0	53.0	51.0	49.0	48.0	48.0	49.0
107.5°	68.0	68.0	68.0	66.0	63.0	60.0	59.0	59.0	60.0

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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°
110°	86.0	84.0	83.0	84.0	81.0	78.0	76.0	74.0	75.0
112.5°	103.0	102.0	102.0	105.0	103.0	100.0	98.0	95.0	94.0
115°	120.0	121.0	123.0	125.0	124.0	123.0	121.0	116.0	113.0
117.5°	135.0	138.0	140.0	141.0	139.0	139.0	139.0	133.0	129.0
120°	148.0	150.0	151.0	153.0	148.0	148.0	148.0	145.0	142.0
122.5°	158.0	159.0	160.0	162.0	156.0	155.0	156.0	153.0	150.0
125°	167.0	167.0	167.0	168.0	164.0	163.0	164.0	160.0	158.0
127.5°	175.0	176.0	175.0	175.0	173.0	173.0	173.0	166.0	163.0
130°	183.0	183.0	182.0	183.0	181.0	184.0	181.0	171.0	169.0
132.5°	191.0	190.0	189.0	192.0	189.0	192.0	190.0	179.0	176.0
135°	197.0	196.0	197.0	201.0	199.0	199.0	195.0	185.0	184.0
137.5°	203.0	203.0	205.0	210.0	207.0	204.0	198.0	191.0	190.0
140°	212.0	212.0	214.0	217.0	214.0	209.0	202.0	195.0	195.0
142.5°	218.0	220.0	222.0	223.0	217.0	211.0	204.0	198.0	198.0
145°	225.0	230.0	230.0	227.0	217.0	211.0	205.0	201.0	202.0
147.5°	233.0	239.0	236.0	229.0	218.0	212.0	207.0	204.0	206.0
150°	239.0	242.0	240.0	232.0	220.0	214.0	211.0	210.0	211.0
152.5°	241.0	242.0	241.0	235.0	223.0	219.0	217.0	215.0	216.0
155°	239.0	238.0	237.0	234.0	227.0	224.0	223.0	220.0	219.0
157.5°	230.0	228.0	229.0	229.0	226.0	226.0	225.0	222.0	219.0
160°	216.0	215.0	217.0	219.0	219.0	221.0	222.0	218.0	215.0
162.5°	196.0	196.0	199.0	200.0	201.0	204.0	208.0	207.0	207.0
165°	175.0	176.0	179.0	181.0	181.0	185.0	189.0	190.0	192.0
167.5°	158.0	160.0	163.0	165.0	164.0	168.0	171.0	172.0	174.0
170°	147.0	148.0	150.0	152.0	152.0	155.0	158.0	159.0	160.0
172.5°	140.0	141.0	144.0	145.0	144.0	146.0	149.0	149.0	151.0
175°	138.0	138.0	140.0	141.0	140.0	141.0	143.0	143.0	144.0
177.5°	138.0	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	140.0

(END OF REPORT)