

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: P198280

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198280
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-CG-LWR-LW-UPL
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT
WIDE 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: 3994.6 lumens
Efficiency: N/A
Efficacy: 88.0 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



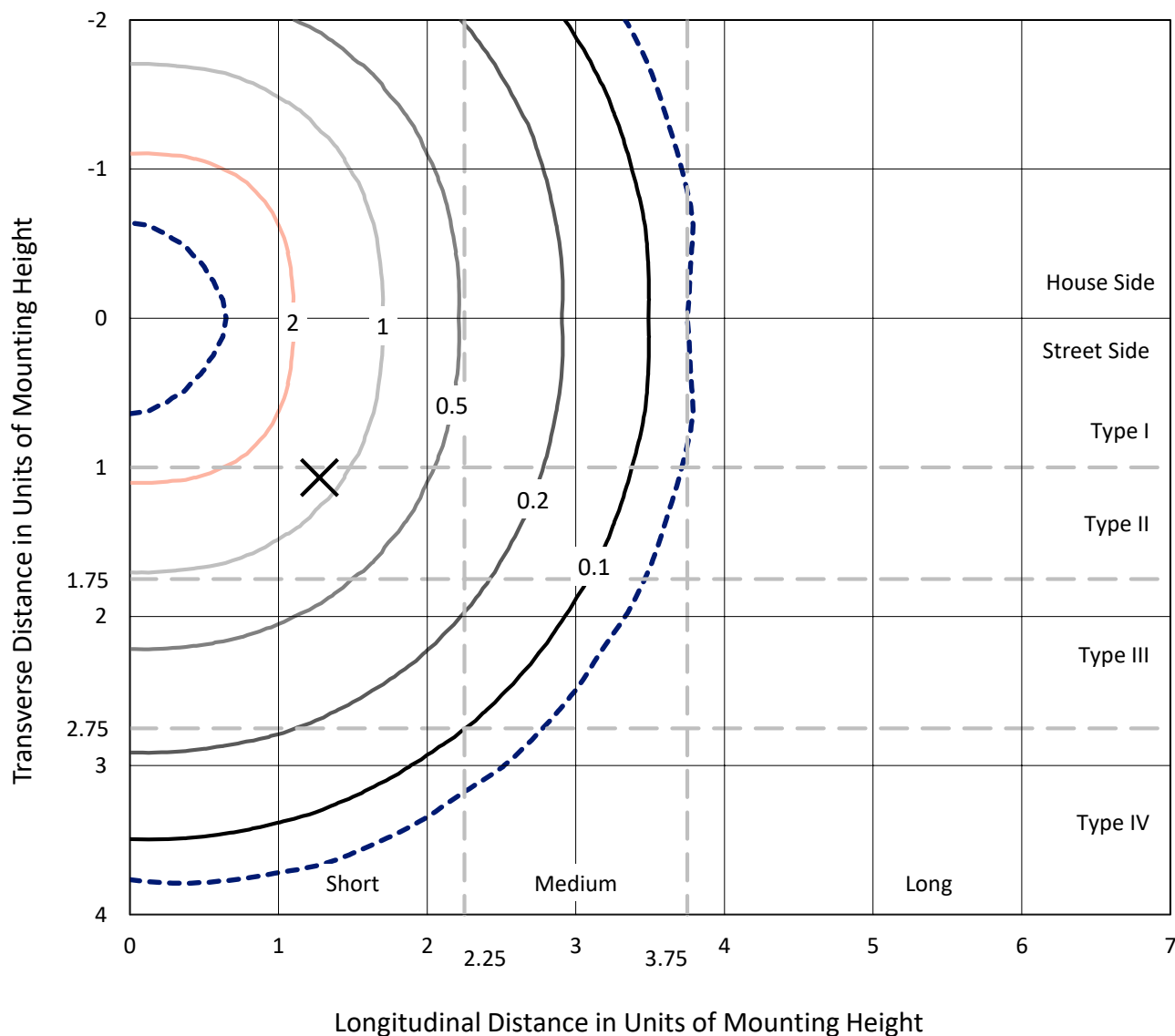
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

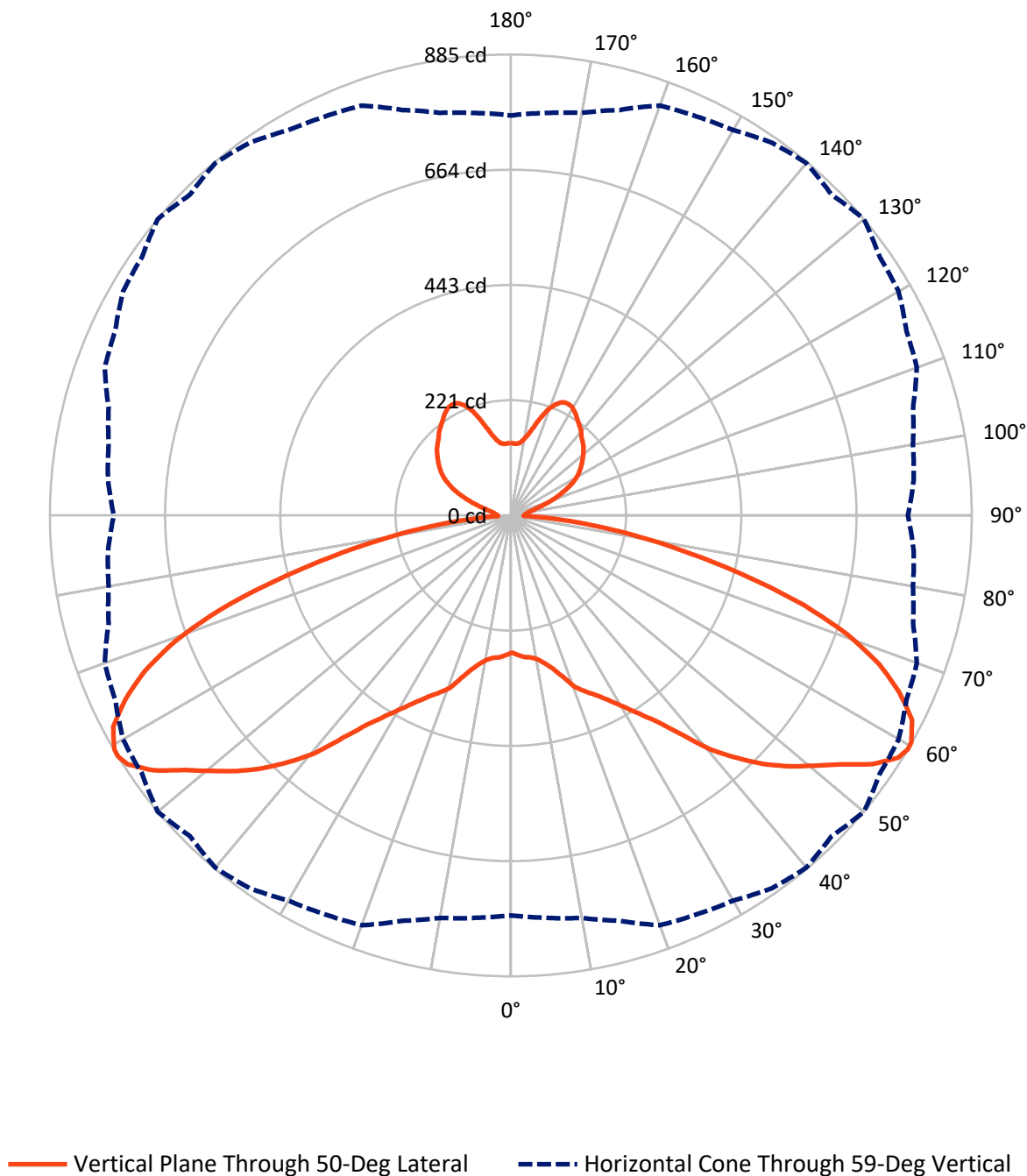


Based on 10 foot mounting height. Maximum calculated value = 2.9 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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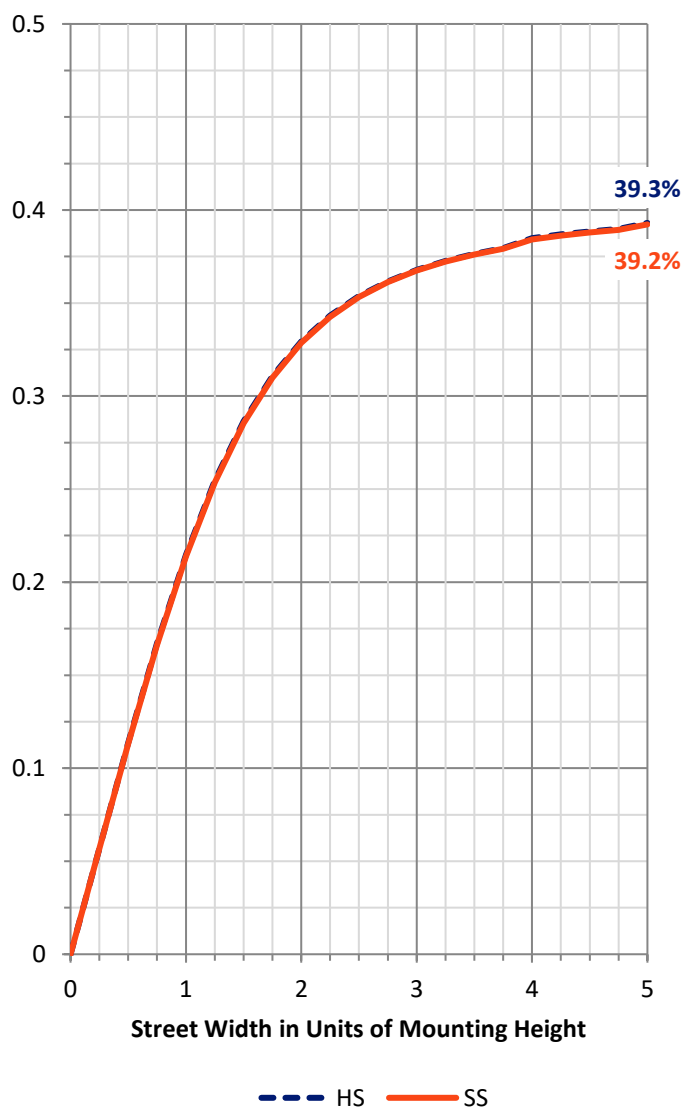
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1585.3	412.0	1997.3
	% Fixture	39.7	10.3	50.0
Street Side	Lumens	1585.3	412.0	1997.3
	% Fixture	39.7	10.3	50.0
Total	Lumens	3170.6	824.0	3994.6
	% Fixture	79.4	20.6	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.2	0.7
10°-20°	88.4	2.2
20°-30°	178.0	4.5
30°-40°	306.2	7.7
40°-50°	505.6	12.7
50°-60°	711.9	17.8
60°-70°	761.6	19.1
70°-80°	483.8	12.1
80°-90°	108.9	2.7
90°-100°	38.3	1.0
100°-110°	59.4	1.5
110°-120°	119.3	3.0
120°-130°	148.7	3.7
130°-140°	153.2	3.8
140°-150°	136.0	3.4
150°-160°	103.7	2.6
160°-170°	51.8	1.3
170°-180°	13.6	0.3
0°-90°	3170.6	79.4
0°-180°	3994.6	100.0

Coefficient of Utilization



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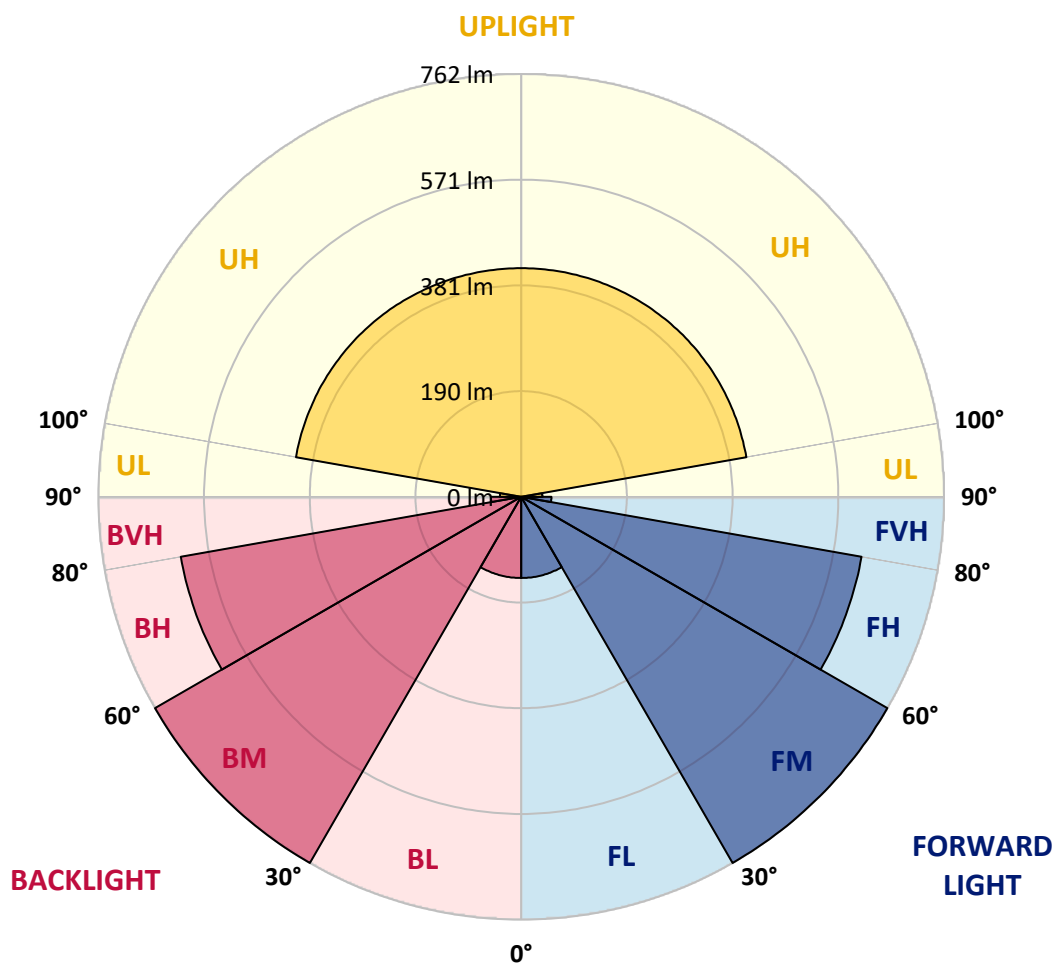
CATALOG NUMBER: TT-C1-LED-E1-WQ-CG-LWR-LW-UPL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	146.3	3.7			
FM	(30°-60°)	761.9	19.1			
FH	(60°-80°)	622.7	15.6			G0/660
FVH	(80°-90°)	54.5	1.4			G1/100
BL	(0°-30°)	146.3	3.7	B1/500		
BM	(30°-60°)	761.9	19.1	B1/1000		
BH	(60°-80°)	622.7	15.6	B2/1000		G0/660
BVH	(80°-90°)	54.5	1.4			G1/100
UL	(90°-100°)	38.3	1.0		U2/50	
UH	(100°-180°)	412.0	10.3		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°	263.5	263.5	263.5	263.5	263.5	263.5	263.5	263.5	263.5	263.5	263.5
2.5°	269.1	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4
5°	270.5	270.5	271.2	271.2	271.9	271.9	271.9	272.6	272.6	272.6	273.3
7.5°	273.3	272.6	273.3	273.3	273.3	274.0	274.0	274.0	274.7	275.4	275.4
10°	282.4	281.7	282.4	282.4	282.4	281.0	281.0	281.7	281.0	281.0	281.0
12.5°	293.0	293.0	293.7	294.4	294.4	293.7	293.0	292.2	291.5	291.5	291.5
15°	302.8	303.5	304.2	305.6	306.3	306.3	307.0	307.7	307.0	307.0	306.3
17.5°	318.2	319.6	320.3	321.0	321.0	321.0	322.4	324.5	326.6	328.0	326.6
20°	344.1	344.8	346.2	346.2	345.5	346.2	347.6	348.3	349.7	351.1	351.8
22.5°	361.6	363.0	365.1	365.1	364.4	365.1	366.5	366.5	365.1	365.8	367.2
25°	376.4	377.1	378.5	379.2	379.9	383.4	386.2	385.5	382.7	383.4	382.7
27.5°	393.9	395.3	396.7	396.7	396.7	398.8	401.6	403.0	405.1	404.4	402.3
30°	417.0	419.1	419.8	419.1	420.5	422.6	421.9	423.3	426.8	430.3	426.1
32.5°	435.2	437.3	439.4	442.2	447.1	449.9	448.5	449.2	451.3	454.1	454.1
35°	462.6	466.1	467.5	468.2	473.1	478.7	482.9	486.4	485.7	483.6	487.1
37.5°	503.9	507.4	508.8	511.6	517.9	519.3	525.6	534.0	536.8	534.0	534.0
40°	548.1	551.6	558.6	564.9	574.7	576.8	584.5	588.0	595.0	595.7	591.5
42.5°	584.5	588.7	590.1	600.6	613.9	623.7	632.2	632.9	637.8	642.0	637.1
45°	623.7	627.3	629.4	639.2	646.2	658.1	671.4	677.0	679.1	678.4	681.2
47.5°	660.2	665.1	667.2	674.9	683.3	693.1	700.8	717.0	720.5	713.5	719.8
50°	682.6	688.2	693.1	709.9	724.7	732.4	738.7	752.0	759.7	753.4	755.5
52.5°	717.7	719.1	723.3	730.3	752.0	777.9	784.9	789.1	800.4	803.9	794.0
55°	765.3	770.2	773.7	782.8	791.9	810.2	841.0	846.6	843.8	860.6	843.1
57.5°	772.3	781.4	791.9	812.3	830.5	836.1	854.3	876.0	873.9	876.0	877.4
59°	768.1	775.8	784.9	806.0	837.5	845.2	854.3	873.9	883.1	871.1	885.2
60°	769.5	775.1	780.0	796.9	830.5	848.0	853.6	865.5	883.1	866.9	883.8
62.5°	763.9	770.9	776.5	786.3	802.5	827.0	848.7	843.1	868.3	855.7	864.8
65°	733.8	741.5	752.7	766.7	785.6	792.6	814.4	826.3	820.7	834.7	820.0
67.5°	683.3	690.3	697.3	714.2	735.2	744.3	749.9	771.6	763.9	780.0	763.2
70°	616.0	623.7	633.6	642.7	661.6	669.3	675.6	685.4	688.2	688.2	686.8
72.5°	535.4	541.7	548.1	557.2	568.4	575.4	578.2	580.3	591.5	587.3	588.0
75°	444.3	450.6	453.4	456.9	464.7	464.0	466.8	465.4	472.4	469.6	468.2
77.5°	347.6	349.7	357.4	357.4	355.3	358.8	355.3	353.2	351.8	353.2	353.2
80°	241.1	247.4	252.3	255.8	257.2	255.8	256.5	253.7	253.7	251.6	252.3
82.5°	148.6	154.9	157.0	160.5	161.2	161.2	161.2	159.1	159.8	157.7	159.1
85°	72.9	72.9	75.7	79.2	79.9	81.3	81.3	81.3	81.3	81.3	82.0
87.5°	18.2	18.2	19.6	21.7	21.7	22.4	23.1	23.8	23.8	24.5	24.5
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

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

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	263.5	263.5	263.5	263.5	263.5	263.5	263.5	263.5
2.5°	268.4	268.4	268.4	268.4	268.4	268.4	268.4	268.4
5°	273.3	272.6	272.6	271.9	271.9	271.2	271.2	271.2
7.5°	276.1	276.1	275.4	274.7	274.0	274.0	274.7	274.7
10°	281.7	283.1	283.8	283.8	283.1	283.1	282.4	282.4
12.5°	290.8	292.2	293.7	295.1	295.1	294.4	293.0	292.2
15°	304.9	304.9	305.6	306.3	306.3	304.9	302.1	302.1
17.5°	323.8	322.4	320.3	321.0	321.7	321.0	318.2	319.6
20°	349.7	346.9	345.5	344.1	346.9	346.9	342.7	342.7
22.5°	368.6	366.5	363.0	362.3	364.4	365.8	362.3	360.2
25°	384.8	385.5	381.3	379.2	379.9	380.6	375.6	376.4
27.5°	402.3	403.0	400.9	397.4	396.0	398.1	394.6	393.2
30°	423.3	422.6	424.0	419.8	416.3	418.4	418.4	414.9
32.5°	450.6	448.5	449.2	444.3	440.1	439.4	436.6	432.4
35°	487.8	482.2	478.0	475.2	467.5	466.1	466.1	461.2
37.5°	536.1	527.7	520.0	520.0	508.1	504.6	506.7	500.4
40°	590.1	587.3	575.4	573.3	560.7	552.3	552.3	544.6
42.5°	629.4	632.9	618.8	610.4	602.0	588.7	590.1	580.3
45°	672.1	670.0	658.1	643.4	640.6	626.5	628.0	618.1
47.5°	712.8	700.1	694.5	679.8	673.5	657.4	662.3	654.6
50°	752.0	738.0	732.4	714.9	706.4	688.9	689.6	675.6
52.5°	792.6	780.0	771.6	749.2	734.5	721.9	719.1	712.8
55°	845.2	831.9	811.6	790.5	779.3	761.1	763.2	753.4
57.5°	865.5	857.1	835.4	822.8	801.8	783.5	779.3	761.8
59°	864.8	859.9	838.2	829.8	799.7	784.2	776.5	762.5
60°	859.9	858.5	836.8	826.3	794.8	780.7	773.7	764.6
62.5°	845.2	844.5	820.0	807.4	781.4	770.2	766.0	754.1
65°	823.5	811.6	792.6	784.2	757.6	749.2	737.3	725.4
67.5°	771.6	745.0	742.2	731.7	708.5	698.0	690.3	679.1
70°	686.1	668.6	668.6	655.3	639.2	634.3	623.7	611.1
72.5°	579.6	575.4	577.5	562.1	554.4	551.6	542.4	531.2
75°	463.3	464.0	461.9	458.3	456.2	456.9	447.1	442.2
77.5°	351.1	357.4	356.0	351.1	356.0	355.3	346.9	344.8
80°	250.2	253.0	254.4	251.6	254.4	252.3	245.3	244.6
82.5°	157.7	158.4	159.8	157.0	157.7	157.0	152.1	152.1
85°	80.6	83.4	79.9	77.1	77.1	74.3	72.9	73.6
87.5°	23.8	25.2	22.4	22.4	21.0	19.6	18.9	18.9
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

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CATALOG NUMBER: TT-C1-LED-E1-WQ-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)