

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: INVUE

Report Number: P173500

Luminaire Tested: **ENT-EXX-LED-E1-BL4-7050-ULG-BBB**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P173500  
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (P20107) AND DOWNLIGHT  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: ENT-EXX-LED-E1-BL4-7050-ULG-BBB  
Description: ENTRI LED LUMINAIRE WITH UPLIGHT, EMERGENCY MODE  
LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL  
Light Source: (42) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1838 lumens  
Efficiency: N/A  
Efficacy: 334.2 lumens/watt  
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')  
IES Classification: Type III - Short - Cutoff  
BUG Rating: B1 - U3 - G0

Input Watts (W): 5.5  
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

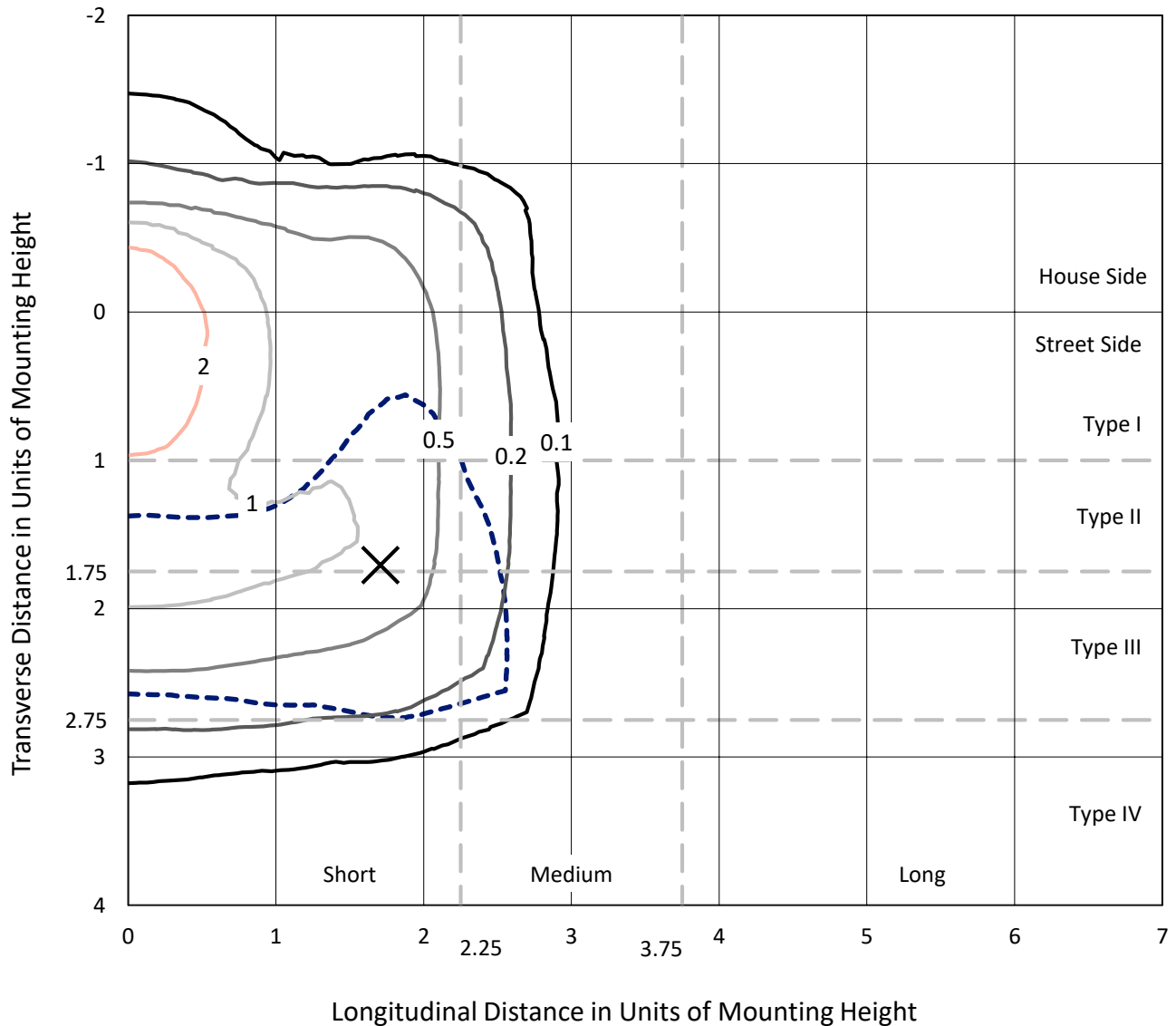


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### Iso-Footcandle Lines of Horizontal Illumination

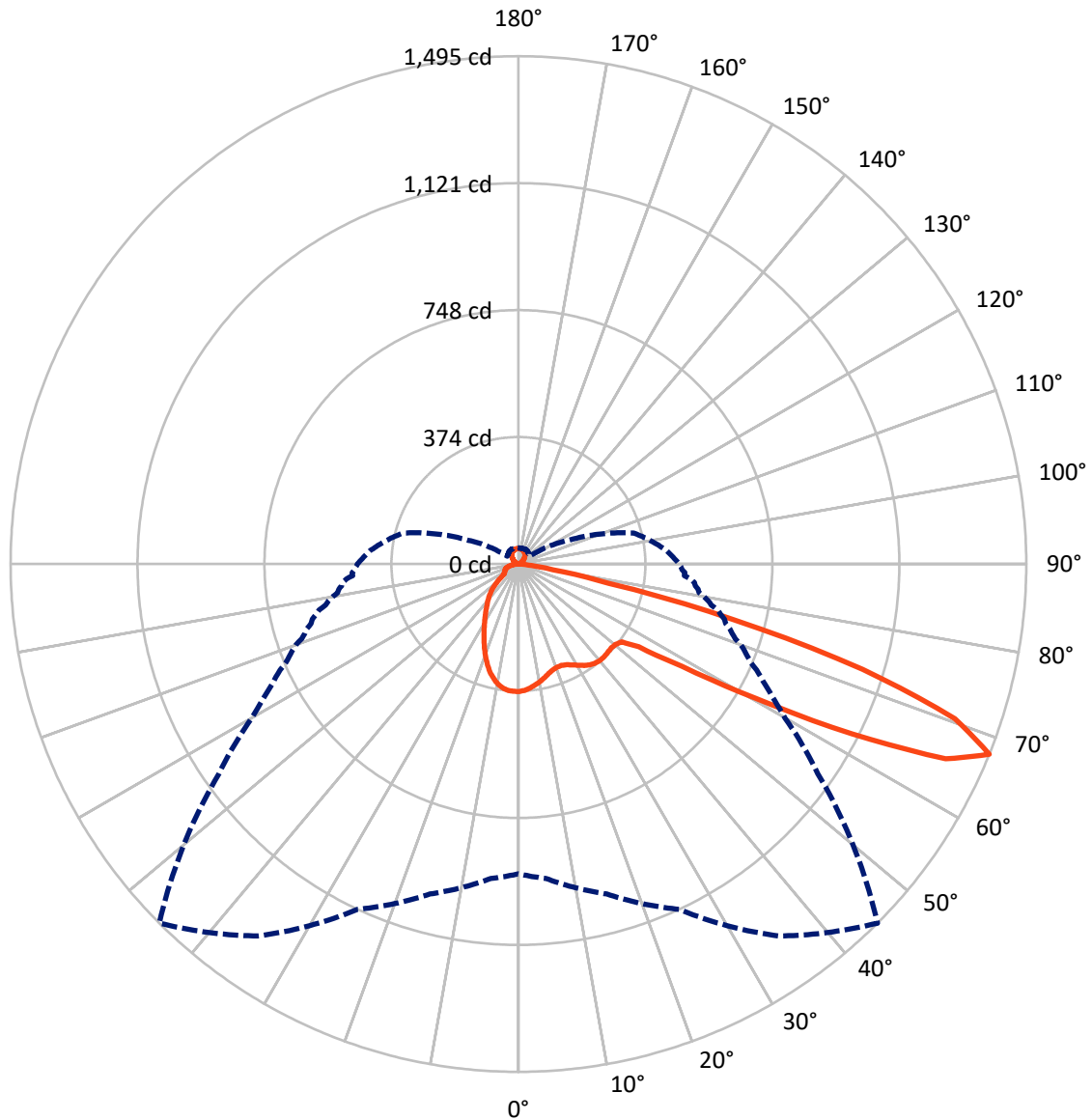
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.8 fc  
 Type III - Short - Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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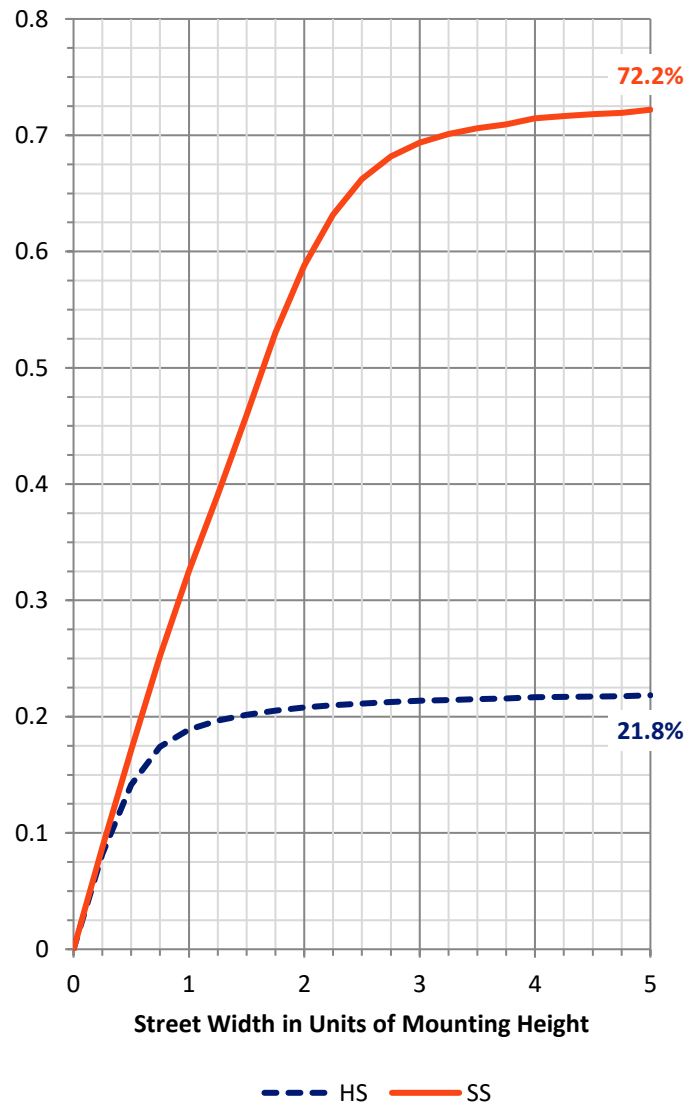
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	406.8	51.1	457.8
	% Fixture	22.1	2.8	24.9
<b>Street Side</b>	Lumens	1329.1	51.1	1380.1
	% Fixture	72.3	2.8	75.1
<b>Total</b>	Lumens	1735.8	102.1	1838.0
	% Fixture	94.4	5.6	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	34.8	1.9
10°-20°	93.8	5.1
20°-30°	135.2	7.4
30°-40°	172.5	9.4
40°-50°	203.6	11.1
50°-60°	326.5	17.8
60°-70°	549.5	29.9
70°-80°	204.4	11.1
80°-90°	15.5	0.8
90°-100°	0.4	0.0
100°-110°	4.0	0.2
110°-120°	8.2	0.4
120°-130°	13.9	0.8
130°-140°	19.4	1.1
140°-150°	21.2	1.2
150°-160°	18.4	1.0
160°-170°	12.4	0.7
170°-180°	4.3	0.2
0°-90°	1735.8	94.4
0°-180°	1838.0	100.0



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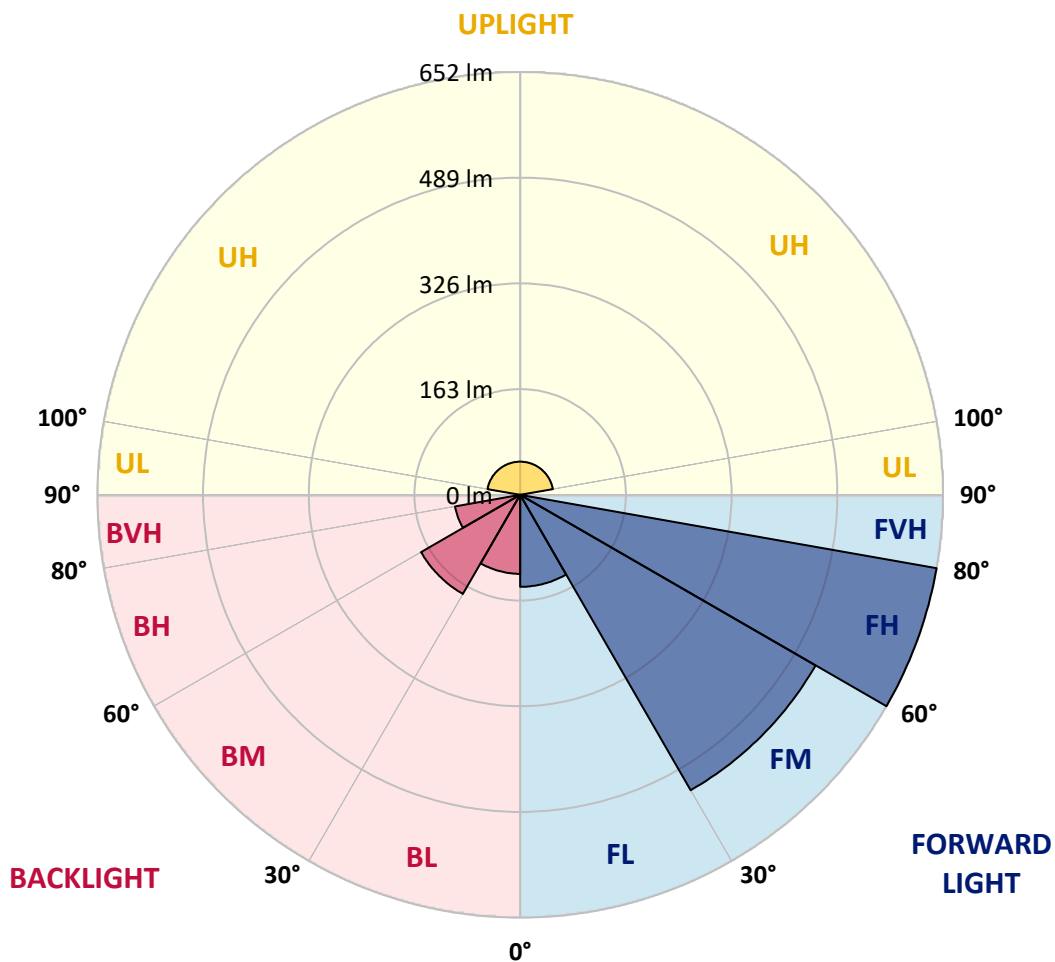
CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7050-ULG-BBB

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	141.9	7.7			
FM	(30°-60°)	526.0	28.6			
FH	(60°-80°)	652.0	35.5			G0/660
FVH	(80°-90°)	9.2	0.5			G0/10
BL	(0°-30°)	121.9	6.6	B1/500		
BM	(30°-60°)	176.6	9.6	B0/220		
BH	(60°-80°)	101.9	5.5	B0/110		G0/110
BVH	(80°-90°)	6.3	0.3			G0/10
UL	(90°-100°)	0.4	0.0		U1/10	
UH	(100°-180°)	51.1	2.8		U3/500	

**BUG Rating: B1-U3-G0**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1
2.5°	369.8	369.8	370.4	370.4	371.4	372.1	371.4	372.7	372.7	372.4	373.1
5°	364.4	364.4	364.8	364.8	365.4	366.4	365.8	367.1	366.8	367.1	367.1
7.5°	358.1	358.1	358.8	358.5	358.8	359.4	357.8	358.8	358.8	359.1	358.8
10°	350.1	350.8	351.5	351.2	351.2	351.5	348.8	349.8	349.5	349.5	349.1
12.5°	342.8	342.2	342.8	343.5	343.2	343.2	340.5	339.9	339.9	339.9	340.2
15°	335.2	335.9	336.9	335.9	335.2	333.9	331.2	330.6	330.6	330.6	330.9
17.5°	333.5	333.5	334.2	333.2	330.6	327.9	322.6	321.6	321.6	321.2	321.2
20°	338.2	337.8	338.8	336.9	330.9	323.9	315.6	314.0	314.0	314.0	313.6
22.5°	347.8	347.8	349.5	347.2	337.5	324.2	311.9	309.3	309.0	308.6	308.0
25°	366.4	366.1	367.1	361.1	347.2	328.6	310.9	307.0	306.6	306.0	305.3
27.5°	388.0	388.7	390.7	381.7	361.1	336.2	315.3	308.6	308.0	307.0	305.6
30°	409.3	411.3	414.9	405.3	377.1	345.8	321.9	314.3	312.9	311.6	309.3
32.5°	436.2	435.5	441.5	426.9	391.0	356.1	328.9	319.6	317.9	315.9	312.9
35°	464.8	466.1	467.4	443.8	402.6	364.4	333.2	322.6	320.6	318.6	314.3
37.5°	493.3	493.7	490.7	457.4	409.6	369.4	335.5	323.2	320.6	317.6	312.6
40°	519.6	518.6	509.6	467.8	413.6	372.1	336.5	321.9	318.6	315.6	310.0
42.5°	534.5	533.5	522.2	472.4	413.9	371.7	336.5	320.6	316.9	313.3	307.0
45°	540.8	540.2	527.2	473.1	411.6	369.8	334.5	319.3	315.6	312.3	305.6
47.5°	541.5	541.5	528.2	472.1	409.6	368.4	334.5	320.9	317.9	315.3	310.3
50°	538.5	538.8	528.5	474.7	411.3	371.4	337.8	324.9	321.9	319.3	313.6
52.5°	573.7	570.4	547.5	486.7	422.3	381.0	349.1	337.5	336.5	334.9	330.6
55°	842.8	845.5	720.2	561.4	468.4	430.5	417.3	414.9	422.3	424.9	424.9
57.5°	1070.1	1061.4	1014.2	819.2	612.6	567.1	572.4	578.0	588.7	593.3	596.7
60°	1125.5	1126.2	1124.9	1069.4	904.3	800.6	774.7	750.1	749.2	740.5	733.9
62.5°	1118.9	1124.2	1149.1	1161.8	1178.0	1102.0	943.8	875.7	862.4	846.2	822.9
65°	1070.7	1078.7	1118.6	1180.0	1320.2	1382.7	1057.8	935.8	915.2	895.7	856.4
67.5°	912.3	929.5	1005.9	1121.9	1337.2	1495.3	1076.4	906.6	879.4	853.8	807.3
70°	563.1	572.1	690.0	905.3	1211.6	1363.4	977.4	769.4	734.8	702.3	638.8
72.5°	363.5	360.4	380.4	510.0	890.3	1059.4	672.1	511.6	483.4	457.4	416.6
75°	254.5	254.8	245.8	243.2	412.9	656.1	304.3	218.6	206.0	200.7	192.0
77.5°	165.8	167.8	165.4	171.8	165.4	272.7	139.9	102.7	97.7	94.3	89.0
80°	100.0	106.6	108.6	109.9	111.6	103.0	83.0	60.5	54.5	48.8	40.2
82.5°	17.6	17.3	23.9	32.2	42.2	48.2	34.9	21.9	20.6	19.9	18.3
85°	0.0	0.0	0.3	0.3	0.7	2.3	3.7	4.3	4.0	4.3	4.7
87.5°	0.0	0.0	0.0	0.3	0.3	0.7	0.7	0.7	0.7	0.7	0.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
100°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
102.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
105°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
107.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
110°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8



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CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7050-ULG-BBB

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
112.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
115°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
117.5°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
120°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
122.5°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
125°	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
127.5°	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
130°	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
132.5°	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8
135°	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2
137.5°	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6
140°	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9
142.5°	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
145°	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
147.5°	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6
150°	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
152.5°	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
155°	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
157.5°	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1
160°	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
162.5°	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2
165°	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0
167.5°	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4
170°	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5
172.5°	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9
175°	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5
177.5°	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7
180°	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6





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**CANDELA DISTRIBUTION (continued):**

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1
2.5°	373.1	372.7	372.4	372.4	373.1	373.1	372.7	372.7	373.1	372.7	373.4
5°	367.4	367.1	367.1	366.8	367.1	367.4	367.1	367.1	367.4	367.1	367.8
7.5°	358.5	358.8	358.5	358.5	358.8	359.1	358.8	358.8	358.8	358.8	358.5
10°	349.1	349.1	348.8	348.8	349.5	349.1	348.8	348.8	349.1	349.5	348.8
12.5°	339.9	340.5	340.5	339.2	339.5	339.9	339.9	339.5	339.5	340.5	339.5
15°	330.6	330.9	330.6	330.9	330.2	329.9	330.2	330.2	329.6	329.2	329.2
17.5°	321.2	320.9	320.9	320.3	319.9	319.9	319.6	319.9	319.3	319.6	318.6
20°	312.9	312.6	312.3	312.3	311.3	311.3	311.3	310.9	310.3	310.3	310.0
22.5°	308.0	307.6	307.3	306.6	306.3	306.0	306.0	305.6	305.0	304.6	304.3
25°	305.3	305.0	304.3	303.7	303.3	303.0	303.0	302.7	302.0	301.3	301.0
27.5°	305.6	305.0	304.3	303.7	303.3	302.7	302.3	302.0	301.3	300.6	300.0
30°	308.6	307.3	306.0	305.0	304.0	303.0	302.3	302.0	301.0	300.0	299.0
32.5°	311.6	310.0	308.0	306.0	304.3	302.7	301.6	300.6	299.3	297.7	296.7
35°	312.6	310.6	307.6	306.0	303.7	301.6	300.0	298.7	296.3	294.3	292.7
37.5°	310.3	308.0	305.0	302.7	300.3	297.7	295.7	293.7	292.0	289.7	288.0
40°	306.6	304.0	301.0	297.7	295.3	292.7	290.7	289.0	286.7	284.7	283.4
42.5°	303.7	300.6	297.3	294.7	292.0	289.3	287.0	285.4	283.0	280.7	279.1
45°	302.7	299.6	297.0	293.7	291.0	289.0	287.0	284.7	282.7	280.7	278.7
47.5°	308.0	305.3	302.7	300.0	297.7	295.3	293.4	291.0	288.7	286.0	284.0
50°	310.9	308.0	305.6	302.7	300.0	297.7	295.7	293.4	291.7	289.0	287.0
52.5°	332.5	328.6	329.2	326.6	326.6	323.9	325.9	322.9	324.6	322.6	325.6
55°	423.9	425.2	433.6	434.9	438.2	437.9	439.9	448.5	445.2	440.8	442.2
57.5°	587.7	590.7	595.0	591.0	594.0	594.7	600.3	598.0	596.0	594.7	590.3
60°	729.9	725.9	719.6	711.9	708.9	705.6	700.0	700.0	692.7	690.3	684.7
62.5°	813.3	801.6	793.7	781.4	772.7	766.8	756.8	749.2	739.2	731.5	722.6
65°	840.5	820.9	806.9	791.7	778.0	765.1	750.8	739.8	727.6	719.2	705.0
67.5°	787.7	767.7	744.2	727.9	713.6	697.3	675.0	661.4	650.8	634.9	627.9
70°	613.3	592.3	562.8	554.8	532.9	507.6	485.0	471.4	455.8	444.8	433.2
72.5°	389.0	365.4	352.5	342.8	328.6	307.6	288.0	280.1	266.4	263.4	255.8
75°	182.7	166.8	163.4	161.1	145.5	142.5	136.5	133.9	127.6	124.3	122.9
77.5°	81.7	78.1	72.1	70.4	65.4	60.5	54.5	51.8	48.5	46.5	43.8
80°	37.2	33.5	31.2	29.6	28.9	27.2	25.9	24.9	23.9	23.9	22.2
82.5°	17.9	17.3	16.6	16.6	15.6	15.6	14.6	14.3	14.0	13.6	13.6
85°	5.0	5.0	5.0	5.3	5.3	5.3	5.3	5.3	5.3	5.6	5.6
87.5°	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
100°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
102.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
105°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
107.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
110°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8



REPORT NUMBER: P173500

CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7050-ULG-BBB

**CANDELA DISTRIBUTION (continued):**

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
112.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
115°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
117.5°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
120°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
122.5°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
125°	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
127.5°	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9
130°	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
132.5°	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8
135°	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2
137.5°	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6
140°	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9
142.5°	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1
145°	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
147.5°	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6
150°	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
152.5°	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
155°	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
157.5°	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1
160°	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
162.5°	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2
165°	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0
167.5°	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4
170°	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5
172.5°	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9
175°	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5
177.5°	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7
180°	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6



REPORT NUMBER: P173500

CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7050-ULG-BBB

**CANDELA DISTRIBUTION (continued):**

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1
2.5°	373.1	373.1	373.1	373.8	373.4	374.4	374.4	374.4	375.1	375.4	375.1
5°	367.8	367.8	367.8	368.1	368.1	368.8	368.8	369.4	369.4	369.8	369.8
7.5°	359.1	359.4	359.4	360.1	359.8	360.1	360.1	361.1	361.1	361.4	361.4
10°	349.1	349.5	349.5	349.5	349.8	350.1	350.1	350.8	351.2	351.2	351.8
12.5°	339.9	339.5	339.9	339.5	340.5	340.5	340.9	340.5	340.9	341.2	341.5
15°	329.6	329.6	329.2	329.6	329.6	329.2	328.9	329.2	329.9	329.9	329.9
17.5°	319.3	318.3	318.3	318.3	317.9	317.3	317.9	317.6	317.6	317.9	317.6
20°	309.6	309.3	309.0	308.6	308.3	307.3	307.3	307.3	307.0	307.0	307.0
22.5°	303.7	303.3	303.0	302.7	301.3	300.6	300.3	300.0	299.3	299.0	298.7
25°	300.3	299.6	299.0	298.3	297.3	296.3	295.3	295.0	294.3	293.7	292.7
27.5°	299.3	298.7	297.3	296.7	295.3	294.3	293.4	292.4	291.4	290.3	289.3
30°	297.7	296.7	295.3	294.3	293.4	291.7	290.3	289.3	287.7	286.7	285.4
32.5°	295.3	294.0	292.7	291.4	290.0	288.4	286.7	285.4	284.0	282.7	281.1
35°	291.4	289.7	287.7	286.4	284.7	283.0	281.7	279.4	278.4	276.7	275.1
37.5°	286.0	284.4	282.7	281.1	279.1	277.7	275.7	273.7	272.7	271.8	269.4
40°	281.4	279.4	277.7	276.4	274.1	273.1	271.1	269.1	267.8	266.8	264.8
42.5°	277.1	275.1	273.4	271.4	269.8	268.4	266.8	264.8	263.4	262.8	261.1
45°	277.1	274.7	272.7	271.1	269.4	267.8	266.4	264.4	263.4	262.1	261.1
47.5°	281.7	279.1	276.7	274.4	272.1	270.4	268.4	266.4	264.8	263.8	262.4
50°	285.0	282.4	281.1	278.4	277.1	274.7	272.4	271.4	269.8	268.8	268.4
52.5°	325.6	323.9	324.2	317.6	316.3	319.6	314.3	318.9	317.6	313.6	313.6
55°	449.8	449.2	452.1	443.8	440.2	446.8	449.5	439.9	442.2	442.2	441.5
57.5°	594.7	590.3	586.0	587.0	581.7	585.7	580.7	574.7	577.0	575.1	568.1
60°	681.0	678.4	672.1	666.1	660.4	655.1	650.5	645.2	642.5	637.8	632.9
62.5°	715.9	708.9	701.3	693.3	684.4	675.7	670.4	663.4	656.1	651.5	646.2
65°	697.3	687.0	678.7	667.1	657.5	646.8	639.9	631.9	625.2	617.3	610.6
67.5°	614.3	602.3	580.4	569.8	555.4	538.8	534.2	524.6	520.9	509.0	489.4
70°	418.3	406.3	393.0	371.4	357.5	343.2	327.6	316.3	314.6	305.0	290.7
72.5°	245.8	237.5	228.9	216.6	206.3	200.7	189.7	178.4	178.1	167.1	161.5
75°	116.3	112.0	103.3	100.3	91.0	90.4	83.4	82.0	83.4	80.1	79.4
77.5°	39.5	38.5	36.6	33.9	31.9	31.2	29.6	28.6	27.9	27.2	26.6
80°	21.6	20.9	20.6	19.6	18.9	18.6	17.6	17.3	16.9	16.6	16.3
82.5°	13.0	13.3	12.6	11.9	11.9	11.3	11.0	10.6	10.3	10.3	10.3
85°	5.3	5.6	5.3	5.0	4.7	5.0	5.0	4.7	4.3	4.7	4.7
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
97.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
100°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
102.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
105°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
107.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
110°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8



REPORT NUMBER: P173500  
 CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7050-ULG-BBB

REPORT N  
 CATALOG

**CANDELA DISTRIBUTION (continued):**

**CANDELA**

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°	
112.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	0°
115°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	2.5°
117.5°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	5°
120°	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	7.5°
122.5°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	10°
125°	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	12.5°
127.5°	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	15°
130°	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	17.5°
132.5°	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	20°
135°	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	22.5°
137.5°	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	25°
140°	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	27.5°
142.5°	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	30°
145°	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	32.5°
147.5°	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35°
150°	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.5°
152.5°	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	40°
155°	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	42.5°
157.5°	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	45°
160°	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	47.5°
162.5°	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	50°
165°	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	52.5°
167.5°	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	55°
170°	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	57.5°
172.5°	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	60°
175°	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	62.5°
177.5°	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	65°
180°	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	67.5°
												70°
												72.5°
												75°
												77.5°
												80°
												82.5°
												85°
												87.5°
												90°
												92.5°
												95°
												97.5°
												100°
												102.5°
												105°
												107.5°
												110°

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 NUMBER: ENT-EXX-LED-E1-BL4-7050-ULG-BBB

REPORT NUMBER: P  
 CATALOG NUMBER:

**DISTRIBUTION (continued):**

**CANDELA DISTRIBUTION**

87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	
375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	375.1	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	6.9
374.4	374.1	374.1	373.8	373.4	374.1	374.7	375.7	375.1	375.7	376.1	115°	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	8.1	
369.1	369.1	369.1	369.4	369.1	370.1	371.4	373.4	373.8	375.1	376.1	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	9.6		
360.4	360.4	360.8	361.1	360.8	362.1	364.4	366.8	368.4	370.7	372.7	120°	122.5°	125°	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	11.3			
350.5	350.5	350.5	350.5	350.8	352.5	354.1	356.8	359.4	363.1	366.1	122.5°	125°	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	13.2				
341.5	340.5	340.9	341.5	340.9	340.9	342.5	344.5	346.2	350.8	356.1	125°	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	15.5					
329.6	329.6	328.9	329.2	327.6	327.2	327.9	329.2	330.6	334.5	340.2	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	17.9						
316.9	316.9	316.9	315.9	314.6	311.3	310.9	310.9	310.9	314.0	320.6	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	20.4							
305.6	305.6	305.0	304.3	301.3	295.7	291.0	289.0	288.4	293.4	296.3	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	22.8								
297.7	297.3	296.0	295.3	290.7	281.7	274.4	268.8	267.1	268.8	269.8	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	25.2									
291.4	290.7	289.3	288.0	281.7	269.4	257.8	248.2	243.5	242.2	238.9	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	27.6										
287.7	286.7	284.7	283.4	275.1	259.5	244.2	231.6	222.9	216.6	210.6	140°	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	29.9											
283.7	282.1	280.1	278.1	268.8	251.5	233.9	218.3	203.0	192.0	183.4	142.5°	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	32.1												
279.1	277.4	275.4	273.4	263.1	244.2	225.6	206.3	185.0	170.1	157.1	145°	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	34.0													
273.4	271.8	269.8	267.4	257.1	238.2	219.9	194.7	169.1	149.8	132.9	147.5°	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	35.6														
267.8	266.1	264.1	261.8	251.5	235.2	216.6	183.7	154.5	130.9	108.6	150°	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	37.3															
263.4	261.8	259.8	257.8	248.5	233.9	214.9	174.4	141.5	112.3	86.7	152.5°	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	38.8																
259.8	258.1	256.5	254.5	246.5	234.5	211.3	166.4	128.9	93.7	68.1	155°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	40.0																	
259.5	258.5	256.5	254.8	247.2	237.5	208.3	159.5	115.9	75.8	57.5	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	41.1																	
261.8	260.5	259.1	257.8	251.8	245.2	206.3	152.2	101.3	61.1	54.8	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	42.2																		
267.4	266.1	265.5	264.8	261.1	255.5	206.3	144.5	84.4	53.8	54.5	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	43.2																			
312.9	309.3	308.3	310.9	301.0	272.7	207.6	135.2	66.1	51.5	54.8	165°	167.5°	170°	172.5°	175°	177.5°	180°	44.0																				
440.2	443.8	434.5	429.9	412.6	315.6	208.6	121.2	53.8	51.2	54.2	167.5°	170°	172.5°	175°	177.5°	180°	44.4																					
568.8	568.8	565.4	558.1	536.9	388.7	213.3	99.0	49.2	50.5	53.5	170°	172.5°	175°	177.5°	180°	44.5																						
631.5	627.5	624.2	619.9	587.7	439.5	220.3	73.1	47.2	50.2	52.8	172.5°	175°	177.5°	180°	44.9																							
642.8	636.5	632.2	626.5	583.7	442.2	223.2	54.8	45.2	50.2	51.2	175°	177.5°	180°	45.5																								
605.6	599.0	593.3	584.0	531.9	400.3	208.3	44.8	43.8	48.8	49.5	177.5°	180°	45.7																									
490.7	482.7	478.4	473.7	439.2	351.5	168.4	40.2	42.2	46.5	47.9	180°	45.6																										
280.7	272.1	267.1	268.1	247.2	278.1	134.6	36.9	39.9	43.8	45.8	45.8																											
151.2	141.8	138.9	129.2	110.3	140.2	103.6	33.9	36.9	39.9	41.9	41.9																											
74.8	71.4	72.4	67.8	57.5	43.2	66.8	30.2	32.9	35.9	37.2	37.2																											
25.9	25.3	24.9	24.6	23.9	22.9	30.6	25.9	28.2	30.6	31.9	31.9																											
16.0	15.6	16.0	15.6	15.3	17.6	19.6	20.6	22.6	25.6	25.9	25.9																											
9.6	9.6	9.6	9.6	9.6	12.3	14.0	16.0	17.6	19.6	21.3	21.3																											
4.7	4.7	4.7	4.7	5.0	8.3	9.3	11.6	12.3	14.0	15.3	15.3																											
1.0	1.0	1.0	1.0	1.3	4.3	5.6	7.0	7.3	7.3	8.3	8.3																											
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																											
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																											
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2																											
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5																											
1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6																											
2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8																											
3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8																											
4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8																											
5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8																											

'173500  
 ENT-EXX-LED-E1-BL4-7050-ULG-BBB

REPORT NUMBER: P173500  
 CATALOG NUMBER: ENT-EXX-I

**TION (continued):**

**CANDELA DISTRIBUTION (con**

88°	89°	90°	95°	105°	115°	125°	135°	145°	155°		165°	175°
6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	0°	375.1	375.1
8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	2.5°	375.7	375.1
9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	5°	376.7	376.1
11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	7.5°	374.1	374.4
13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	10°	368.4	369.4
15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	12.5°	359.4	361.4
17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	15°	344.5	347.5
20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	17.5°	324.6	328.2
22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	20°	299.6	301.3
25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	22.5°	269.1	269.8
27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	25°	236.9	236.9
29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	27.5°	207.0	205.3
32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	30°	178.4	174.1
34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	32.5°	148.2	140.9
35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35°	117.6	111.6
37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.5°	91.4	84.7
38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	40°	70.1	65.1
40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	42.5°	59.1	58.1
41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	45°	56.5	57.8
42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	47.5°	56.8	58.5
43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	50°	57.1	58.8
44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	52.5°	57.1	58.1
44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	55°	56.5	56.5
44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	57.5°	55.1	54.8
44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	60°	54.2	54.2
45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	62.5°	52.5	52.5
45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	65°	49.8	50.2
45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	67.5°	47.2	47.2
										70°	43.8	43.8
										72.5°	40.5	41.9
										75°	38.2	40.5
										77.5°	33.5	35.9
										80°	27.6	27.9
										82.5°	21.9	21.3
										85°	15.6	14.6
										87.5°	8.3	8.0
										90°	0.0	0.0
										92.5°	0.0	0.0
										95°	0.2	0.2
										97.5°	0.5	0.5
										100°	1.6	1.6
										102.5°	2.8	2.8
										105°	3.8	3.8
										107.5°	4.8	4.8
										110°	5.8	5.8



REPORT NUMBER: P173500

CATALOG NUMBER: ENT-EXX-LED-E1-BL

LED-E1-BL4-7050-ULG-BBB

**tinued):**

180°
375.1
374.7
375.7
374.1
369.8
362.8
346.8
328.2
300.3
268.8
235.5
204.3
172.8
140.9
109.9
82.7
64.8
58.5
57.8
58.8
59.1
58.1
56.5
55.5
54.2
52.5
50.2
47.2
44.5
42.5
41.5
37.2
27.9
20.3
14.6
8.3
0.0
0.0
0.2
0.5
1.6
2.8
3.8
4.8
5.8

**CANDELA DISTRIBUTION (continued):**

	165°	175°	180°
112.5°	6.9	6.9	6.9
115°	8.1	8.1	8.1
117.5°	9.6	9.6	9.6
120°	11.3	11.3	11.3
122.5°	13.2	13.2	13.2
125°	15.5	15.5	15.5
127.5°	17.9	17.9	17.9
130°	20.4	20.4	20.4
132.5°	22.8	22.8	22.8
135°	25.2	25.2	25.2
137.5°	27.6	27.6	27.6
140°	29.9	29.9	29.9
142.5°	32.1	32.1	32.1
145°	34.0	34.0	34.0
147.5°	35.6	35.6	35.6
150°	37.3	37.3	37.3
152.5°	38.8	38.8	38.8
155°	40.0	40.0	40.0
157.5°	41.1	41.1	41.1
160°	42.2	42.2	42.2
162.5°	43.2	43.2	43.2
165°	44.0	44.0	44.0
167.5°	44.4	44.4	44.4
170°	44.5	44.5	44.5
172.5°	44.9	44.9	44.9
175°	45.5	45.5	45.5
177.5°	45.7	45.7	45.7
180°	45.6	45.6	45.6

(END OF F

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

Scaled Data Report

