

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: P173616

Luminaire Tested: **ENT-FXX-LED-E1-BL4-7030-ULG-BBB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P173616
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-FXX-LED-E1-BL4-7030-ULG-BBB
Description: ENTRI LED LUMINAIRE WITH UPLIGHT, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (14) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1377.7 lumens
Efficiency: N/A
Efficacy: 250.5 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B0 - 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

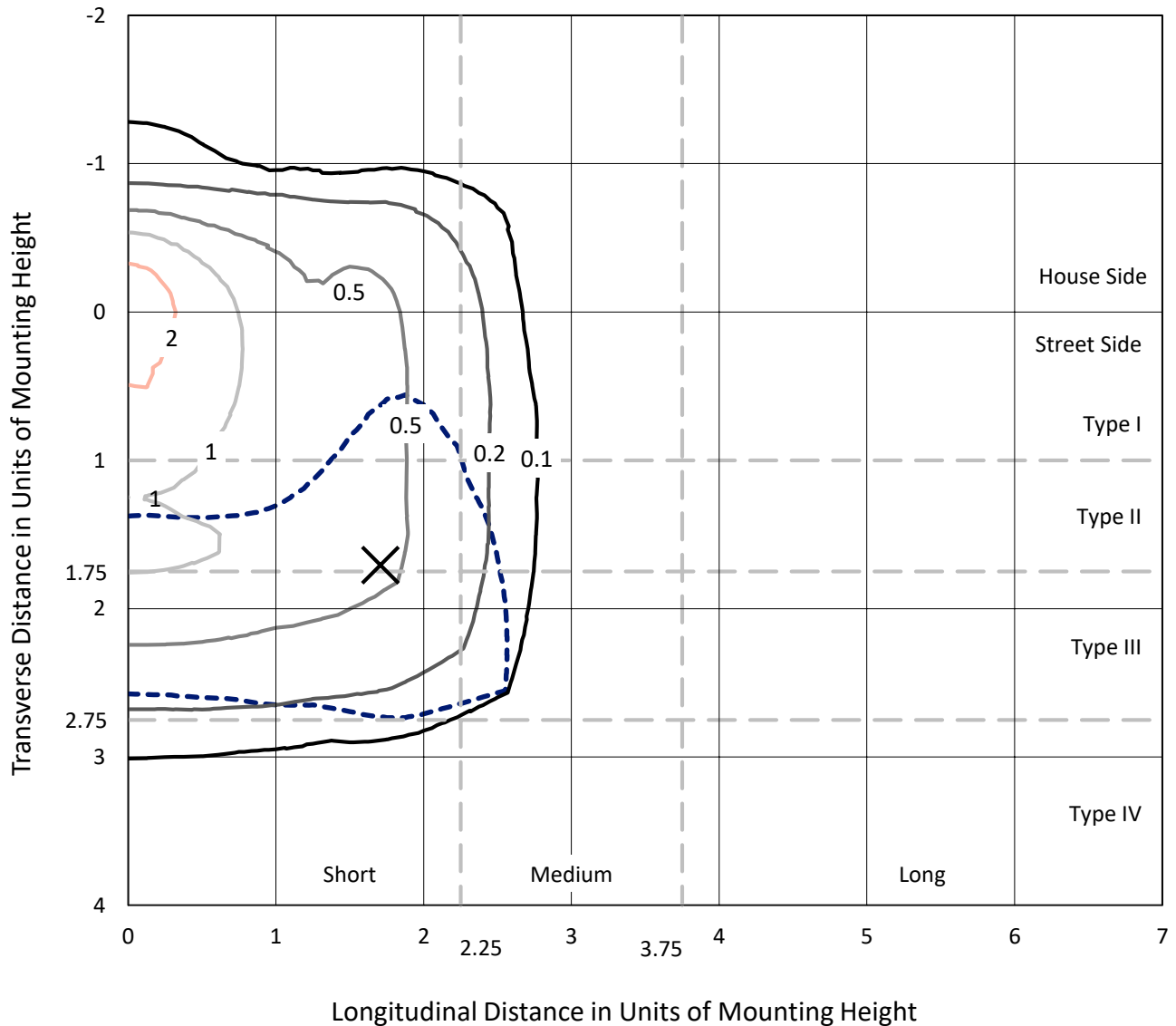


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

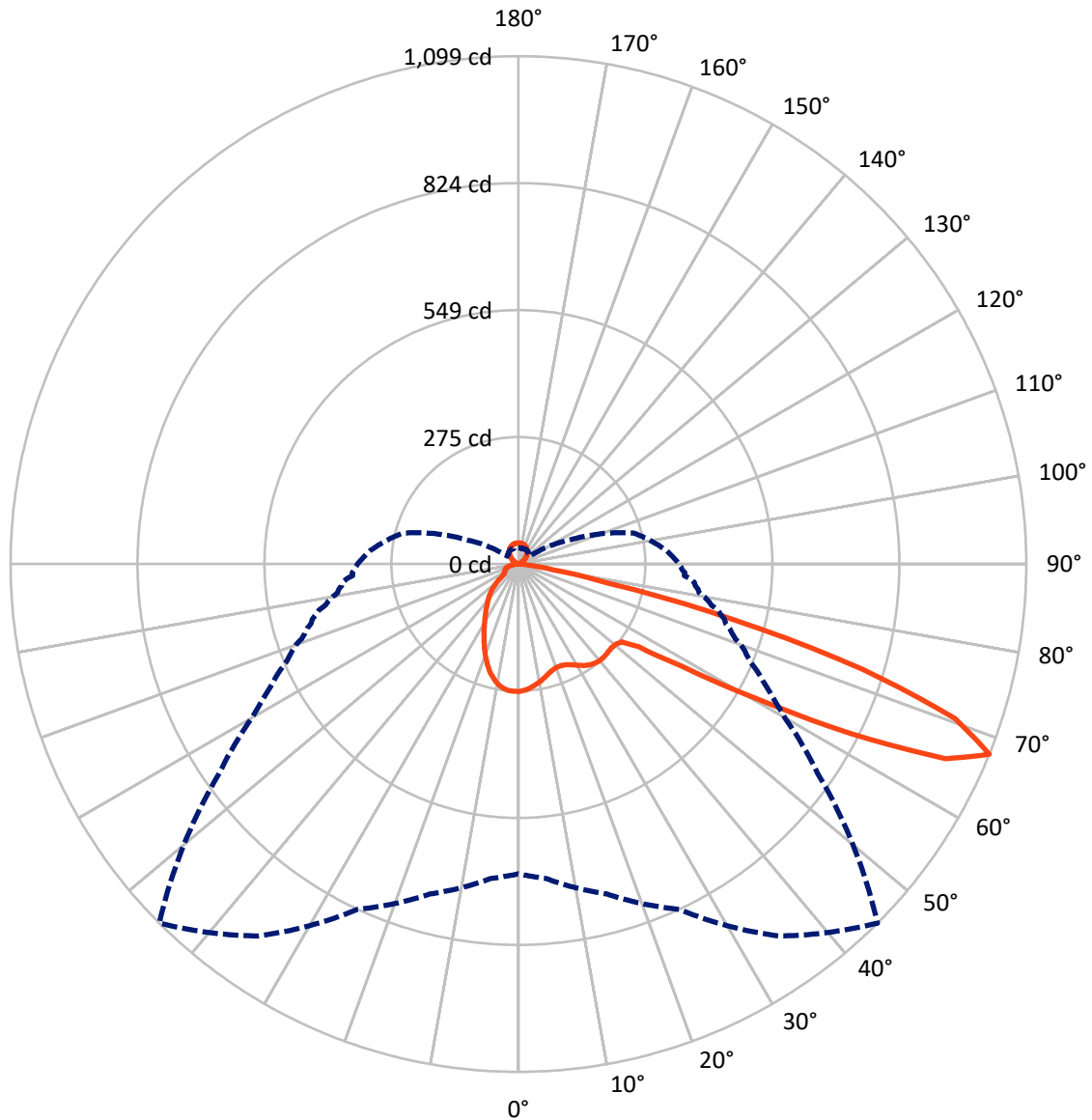


Based on 10 foot mounting height. Maximum calculated value = 2.8 fc
 Type III - Short - Semi-Cutoff

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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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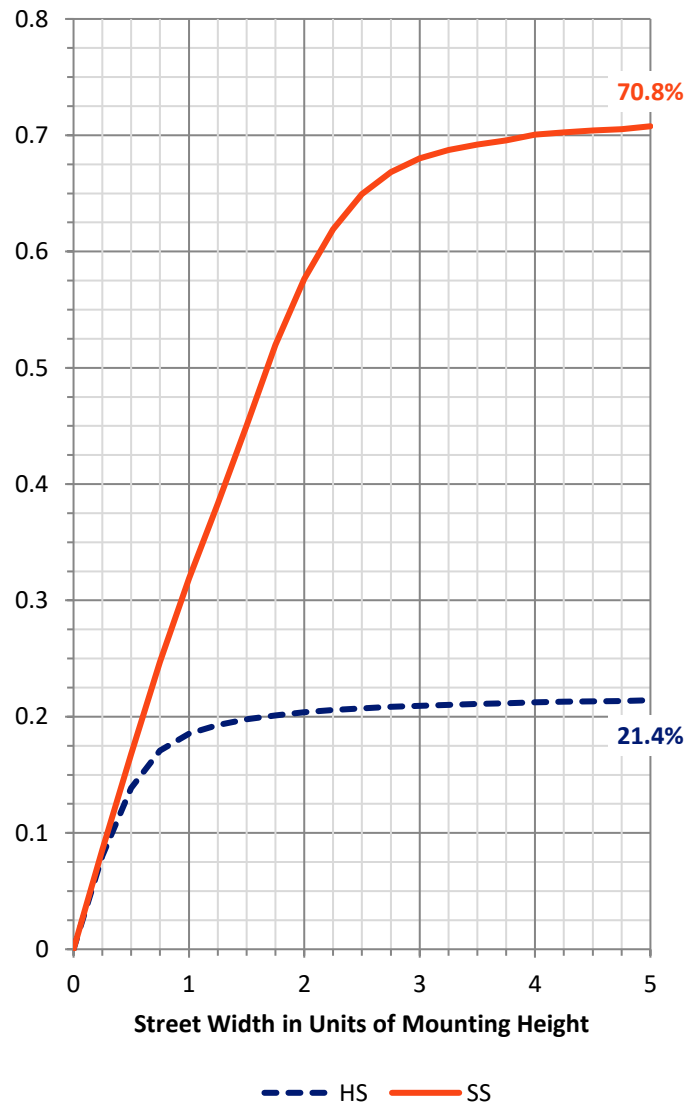
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	298.9	51.1	350.0
	% Fixture	21.7	3.7	25.4
Street Side	Lumens	976.6	51.1	1027.7
	% Fixture	70.9	3.7	74.6
Total	Lumens	1275.5	102.1	1377.7
	% Fixture	92.6	7.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.6	1.9
10°-20°	68.9	5.0
20°-30°	99.3	7.2
30°-40°	126.7	9.2
40°-50°	149.6	10.9
50°-60°	239.9	17.4
60°-70°	403.8	29.3
70°-80°	150.2	10.9
80°-90°	11.4	0.8
90°-100°	0.4	0.0
100°-110°	4.0	0.3
110°-120°	8.2	0.6
120°-130°	13.9	1.0
130°-140°	19.4	1.4
140°-150°	21.2	1.5
150°-160°	18.4	1.3
160°-170°	12.4	0.9
170°-180°	4.3	0.3
0°-90°	1275.5	92.6
0°-180°	1377.7	100.0



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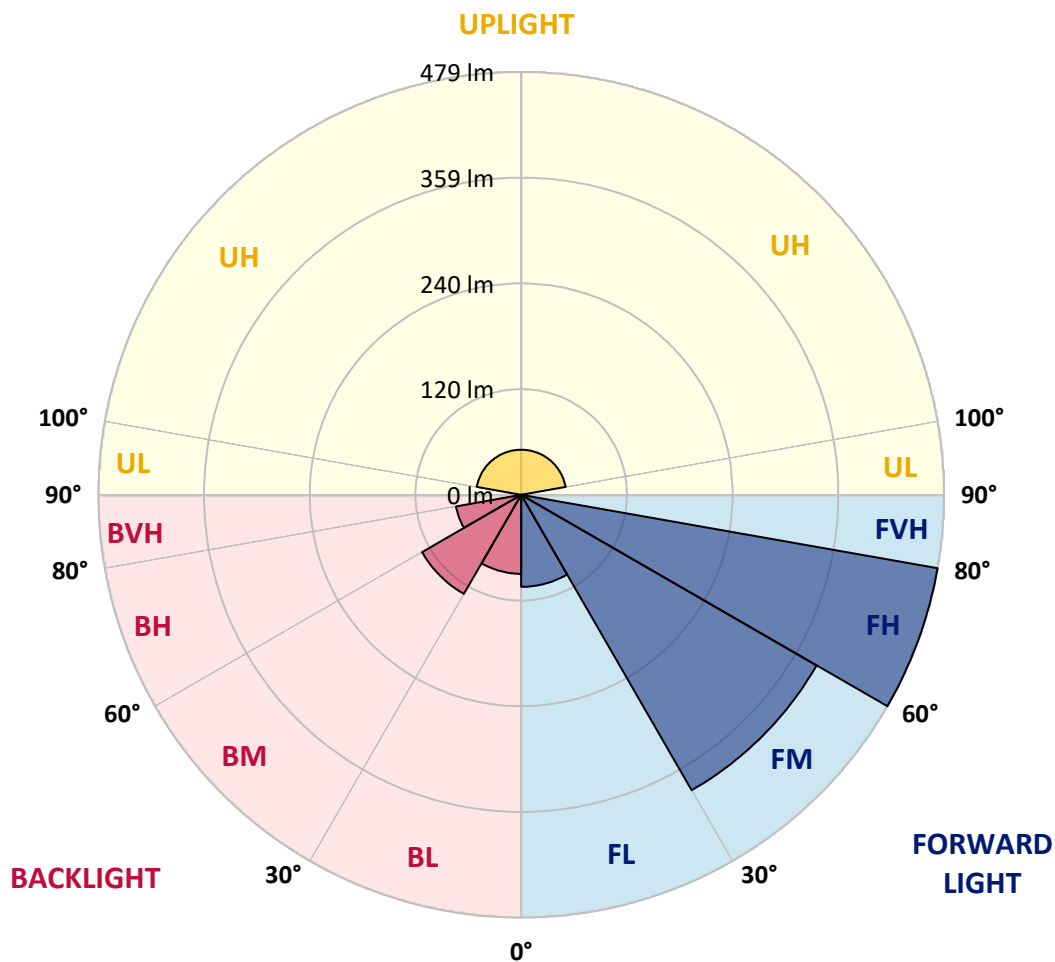
CATALOG NUMBER: ENT-FXX-LED-E1-BL4-7030-ULG-BBB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	104.3	7.6			
FM	(30°-60°)	386.5	28.1			
FH	(60°-80°)	479.1	34.8			G0/660
FVH	(80°-90°)	6.8	0.5			G0/10
BL	(0°-30°)	89.6	6.5	B0/110		
BM	(30°-60°)	129.7	9.4	B0/220		
BH	(60°-80°)	74.9	5.4	B0/110		G0/110
BVH	(80°-90°)	4.6	0.3			G0/10
UL	(90°-100°)	0.4	0.0		U1/10	
UH	(100°-180°)	51.1	3.7		U3/500	

BUG Rating: B0-U3-G0

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6
2.5°	271.7	271.7	272.2	272.2	272.9	273.4	272.9	273.9	273.9	273.6	274.1
5°	267.8	267.8	268.0	268.0	268.5	269.3	268.8	269.8	269.5	269.8	269.8
7.5°	263.2	263.2	263.6	263.4	263.6	264.1	262.9	263.6	263.6	263.9	263.6
10°	257.3	257.8	258.3	258.0	258.0	258.3	256.3	257.1	256.8	256.8	256.5
12.5°	251.9	251.4	251.9	252.4	252.2	252.2	250.2	249.7	249.7	249.7	250.0
15°	246.3	246.8	247.5	246.8	246.3	245.3	243.4	242.9	242.9	242.9	243.1
17.5°	245.1	245.1	245.6	244.9	242.9	240.9	237.0	236.3	236.3	236.1	236.1
20°	248.5	248.3	249.0	247.5	243.1	238.0	231.9	230.7	230.7	230.7	230.5
22.5°	255.6	255.6	256.8	255.1	248.0	238.3	229.2	227.3	227.0	226.8	226.3
25°	269.3	269.0	269.8	265.4	255.1	241.4	228.5	225.6	225.3	224.8	224.3
27.5°	285.1	285.6	287.1	280.5	265.4	247.0	231.7	226.8	226.3	225.6	224.6
30°	300.7	302.2	304.9	297.8	277.1	254.1	236.5	230.9	230.0	229.0	227.3
32.5°	320.5	320.0	324.4	313.7	287.3	261.7	241.7	234.8	233.6	232.1	230.0
35°	341.5	342.5	343.5	326.1	295.9	267.8	244.9	237.0	235.6	234.1	230.9
37.5°	362.5	362.7	360.5	336.1	301.0	271.4	246.5	237.5	235.6	233.4	229.7
40°	381.8	381.1	374.5	343.7	303.9	273.4	247.3	236.5	234.1	231.9	227.8
42.5°	392.8	392.0	383.8	347.1	304.2	273.2	247.3	235.6	232.9	230.2	225.6
45°	397.4	396.9	387.4	347.6	302.5	271.7	245.8	234.6	231.9	229.5	224.6
47.5°	397.9	397.9	388.1	346.9	301.0	270.7	245.8	235.8	233.6	231.7	228.0
50°	395.7	396.0	388.4	348.9	302.2	272.9	248.3	238.7	236.5	234.6	230.5
52.5°	421.6	419.1	402.3	357.6	310.3	280.0	256.5	248.0	247.3	246.1	242.9
55°	619.3	621.3	529.3	412.5	344.2	316.4	306.6	304.9	310.3	312.2	312.2
57.5°	786.3	779.9	745.3	602.0	450.2	416.7	420.6	424.7	432.6	436.0	438.4
60°	827.1	827.5	826.6	785.8	664.5	588.3	569.3	551.2	550.5	544.1	539.3
62.5°	822.2	826.1	844.4	853.7	865.6	809.7	693.5	643.5	633.7	621.8	604.7
65°	786.8	792.6	821.9	867.1	970.1	1016.0	777.3	687.7	672.6	658.1	629.3
67.5°	670.3	683.0	739.2	824.4	982.6	1098.8	790.9	666.2	646.2	627.4	593.2
70°	413.8	420.4	507.0	665.2	890.3	1001.8	718.2	565.4	540.0	516.0	469.4
72.5°	267.1	264.9	279.5	374.7	654.2	778.5	493.8	375.9	355.2	336.1	306.1
75°	187.0	187.2	180.7	178.7	303.4	482.1	223.6	160.6	151.4	147.4	141.1
77.5°	121.8	123.3	121.6	126.2	121.6	200.4	102.8	75.4	71.8	69.3	65.4
80°	73.5	78.4	79.8	80.8	82.0	75.7	61.0	44.4	40.0	35.9	29.5
82.5°	13.0	12.7	17.6	23.7	31.0	35.4	25.6	16.1	15.1	14.6	13.4
85°	0.0	0.0	0.3	0.3	0.5	1.7	2.7	3.2	2.9	3.2	3.4
87.5°	0.0	0.0	0.0	0.3	0.3	0.5	0.5	0.5	0.5	0.5	0.5
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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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°	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6
2.5°	274.1	273.9	273.6	273.6	274.1	274.1	273.9	273.9	274.1	273.9	274.4
5°	270.0	269.8	269.8	269.5	269.8	270.0	269.8	269.8	270.0	269.8	270.2
7.5°	263.4	263.6	263.4	263.4	263.6	263.9	263.6	263.6	263.6	263.6	263.4
10°	256.5	256.5	256.3	256.3	256.8	256.5	256.3	256.3	256.5	256.8	256.3
12.5°	249.7	250.2	250.2	249.2	249.5	249.7	249.7	249.5	249.5	250.2	249.5
15°	242.9	243.1	242.9	243.1	242.7	242.4	242.7	242.7	242.2	241.9	241.9
17.5°	236.1	235.8	235.8	235.3	235.1	235.1	234.8	235.1	234.6	234.8	234.1
20°	230.0	229.7	229.5	229.5	228.7	228.7	228.7	228.5	228.0	228.0	227.8
22.5°	226.3	226.1	225.8	225.3	225.1	224.8	224.8	224.6	224.1	223.8	223.6
25°	224.3	224.1	223.6	223.1	222.9	222.6	222.6	222.4	221.9	221.4	221.2
27.5°	224.6	224.1	223.6	223.1	222.9	222.4	222.1	221.9	221.4	220.9	220.4
30°	226.8	225.8	224.8	224.1	223.4	222.6	222.1	221.9	221.2	220.4	219.7
32.5°	229.0	227.8	226.3	224.8	223.6	222.4	221.6	220.9	219.9	218.7	218.0
35°	229.7	228.3	226.1	224.8	223.1	221.6	220.4	219.4	217.8	216.3	215.1
37.5°	228.0	226.3	224.1	222.4	220.7	218.7	217.3	215.8	214.6	212.9	211.6
40°	225.3	223.4	221.2	218.7	217.0	215.1	213.6	212.4	210.7	209.2	208.2
42.5°	223.1	220.9	218.5	216.5	214.6	212.6	210.9	209.7	208.0	206.3	205.1
45°	222.4	220.2	218.2	215.8	213.8	212.4	210.9	209.2	207.7	206.3	204.8
47.5°	226.3	224.3	222.4	220.4	218.7	217.0	215.6	213.8	212.1	210.2	208.7
50°	228.5	226.3	224.6	222.4	220.4	218.7	217.3	215.6	214.3	212.4	210.9
52.5°	244.3	241.4	241.9	240.0	240.0	238.0	239.5	237.3	238.5	237.0	239.2
55°	311.5	312.5	318.6	319.6	322.0	321.8	323.2	329.6	327.1	323.9	324.9
57.5°	431.8	434.0	437.2	434.3	436.5	436.9	441.1	439.4	438.0	436.9	433.8
60°	536.3	533.4	528.7	523.1	520.9	518.5	514.4	514.4	509.0	507.3	503.1
62.5°	597.6	589.1	583.2	574.2	567.8	563.4	556.1	550.5	543.1	537.5	530.9
65°	617.6	603.2	593.0	581.7	571.7	562.2	551.7	543.6	534.6	528.5	518.0
67.5°	578.8	564.2	546.8	534.9	524.4	512.4	496.0	486.0	478.2	466.5	461.4
70°	450.6	435.3	413.5	407.7	391.6	373.0	356.4	346.4	334.9	326.9	318.3
72.5°	285.8	268.5	259.0	251.9	241.4	226.1	211.6	205.8	195.8	193.6	188.0
75°	134.3	122.5	120.1	118.4	106.9	104.7	100.3	98.4	93.7	91.3	90.3
77.5°	60.1	57.4	53.0	51.7	48.1	44.4	40.0	38.1	35.6	34.2	32.2
80°	27.3	24.7	23.0	21.7	21.2	20.0	19.0	18.3	17.6	17.6	16.3
82.5°	13.2	12.7	12.2	12.2	11.5	11.5	10.7	10.5	10.3	10.0	10.0
85°	3.7	3.7	3.7	3.9	3.9	3.9	3.9	3.9	3.9	4.1	4.1
87.5°	0.5	0.5	0.7	0.7	0.7	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-FXX-LED-E1-BL4-7030-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: P173616

CATALOG NUMBER: ENT-FXX-LED-E1-BL4-7030-ULG-BBB

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6
2.5°	274.1	274.1	274.1	274.6	274.4	275.1	275.1	275.1	275.6	275.8	275.6
5°	270.2	270.2	270.2	270.5	270.5	271.0	271.0	271.4	271.4	271.7	271.7
7.5°	263.9	264.1	264.1	264.6	264.4	264.6	264.6	265.4	265.4	265.6	265.6
10°	256.5	256.8	256.8	256.8	257.1	257.3	257.3	257.8	258.0	258.0	258.5
12.5°	249.7	249.5	249.7	249.5	250.2	250.2	250.5	250.2	250.5	250.7	250.9
15°	242.2	242.2	241.9	242.2	242.2	241.9	241.7	241.9	242.4	242.4	242.4
17.5°	234.6	233.9	233.9	233.9	233.6	233.1	233.6	233.4	233.4	233.6	233.4
20°	227.5	227.3	227.0	226.8	226.5	225.8	225.8	225.8	225.6	225.6	225.6
22.5°	223.1	222.9	222.6	222.4	221.4	220.9	220.7	220.4	219.9	219.7	219.4
25°	220.7	220.2	219.7	219.2	218.5	217.8	217.0	216.8	216.3	215.8	215.1
27.5°	219.9	219.4	218.5	218.0	217.0	216.3	215.6	214.8	214.1	213.4	212.6
30°	218.7	218.0	217.0	216.3	215.6	214.3	213.4	212.6	211.4	210.7	209.7
32.5°	217.0	216.0	215.1	214.1	213.1	211.9	210.7	209.7	208.7	207.7	206.5
35°	214.1	212.9	211.4	210.4	209.2	208.0	207.0	205.3	204.6	203.4	202.1
37.5°	210.2	209.0	207.7	206.5	205.1	204.1	202.6	201.2	200.4	199.7	198.0
40°	206.8	205.3	204.1	203.1	201.4	200.7	199.2	197.7	196.8	196.0	194.5
42.5°	203.6	202.1	200.9	199.4	198.2	197.2	196.0	194.5	193.6	193.1	191.9
45°	203.6	201.9	200.4	199.2	198.0	196.8	195.8	194.3	193.6	192.6	191.9
47.5°	207.0	205.1	203.4	201.6	199.9	198.7	197.2	195.8	194.5	193.8	192.9
50°	209.4	207.5	206.5	204.6	203.6	201.9	200.2	199.4	198.2	197.5	197.2
52.5°	239.2	238.0	238.3	233.4	232.4	234.8	230.9	234.3	233.4	230.5	230.5
55°	330.5	330.0	332.2	326.1	323.4	328.3	330.3	323.2	324.9	324.9	324.4
57.5°	436.9	433.8	430.6	431.3	427.4	430.4	426.7	422.3	424.0	422.6	417.4
60°	500.4	498.5	493.8	489.5	485.3	481.4	478.0	474.1	472.1	468.7	465.1
62.5°	526.1	520.9	515.3	509.5	502.9	496.5	492.6	487.5	482.1	478.7	474.8
65°	512.4	504.8	498.7	490.2	483.1	475.3	470.2	464.3	459.4	453.6	448.7
67.5°	451.4	442.6	426.5	418.7	408.2	396.0	392.5	385.5	382.8	374.0	359.6
70°	307.3	298.5	288.8	272.9	262.7	252.2	240.7	232.4	231.2	224.1	213.6
72.5°	180.7	174.5	168.2	159.2	151.6	147.4	139.4	131.1	130.8	122.8	118.6
75°	85.4	82.3	75.9	73.7	66.9	66.4	61.3	60.3	61.3	58.8	58.3
77.5°	29.0	28.3	26.8	24.9	23.4	23.0	21.7	21.0	20.5	20.0	19.5
80°	15.9	15.4	15.1	14.4	13.9	13.7	13.0	12.7	12.5	12.2	11.9
82.5°	9.5	9.8	9.3	8.8	8.8	8.3	8.1	7.8	7.6	7.6	7.6
85°	3.9	4.1	3.9	3.7	3.4	3.7	3.7	3.4	3.2	3.4	3.4
87.5°	0.7	0.7	0.7	0.7	0.7	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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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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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°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	
275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	275.6	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°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	6.9
275.1	274.9	274.9	274.6	274.4	274.9	275.4	276.1	275.6	276.1	276.3	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°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	8.1	
271.2	271.2	271.2	271.4	271.2	271.9	272.9	274.4	274.6	275.6	276.3	117.5°	120°	122.5°	125°	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	9.6		
264.9	264.9	265.1	265.4	265.1	266.1	267.8	269.5	270.7	272.4	273.9	120°	122.5°	125°	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	11.3			
257.6	257.6	257.6	257.6	257.8	259.0	260.2	262.2	264.1	266.8	269.0	122.5°	125°	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	13.2				
250.9	250.2	250.5	250.9	250.5	250.5	251.7	253.1	254.4	257.8	261.7	125°	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	15.5					
242.2	242.2	241.7	241.9	240.7	240.5	240.9	241.9	242.9	245.8	250.0	127.5°	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	17.9						
232.9	232.9	232.9	232.1	231.2	228.7	228.5	228.5	228.5	230.7	235.6	130°	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	20.4							
224.6	224.6	224.1	223.6	221.4	217.3	213.8	212.4	211.9	215.6	217.8	132.5°	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	22.8								
218.7	218.5	217.5	217.0	213.6	207.0	201.6	197.5	196.3	197.5	198.2	135°	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	25.2									
214.1	213.6	212.6	211.6	207.0	198.0	189.4	182.3	178.9	178.0	175.5	137.5°	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	27.6										
211.4	210.7	209.2	208.2	202.1	190.7	179.4	170.1	163.8	159.2	154.8	140°	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	29.9											
208.5	207.2	205.8	204.3	197.5	184.8	171.9	160.4	149.2	141.1	134.7	142.5°	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	32.1												
205.1	203.8	202.4	200.9	193.4	179.4	165.8	151.6	136.0	125.0	115.5	145°	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	34.0													
200.9	199.7	198.2	196.5	188.9	175.0	161.6	143.0	124.3	110.1	97.6	147.5°	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	35.6														
196.8	195.5	194.1	192.3	184.8	172.8	159.2	135.0	113.5	96.2	79.8	150°	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	37.3															
193.6	192.3	190.9	189.4	182.6	171.9	157.9	128.1	104.0	82.5	63.7	152.5°	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	38.8																
190.9	189.7	188.5	187.0	181.1	172.3	155.2	122.3	94.7	68.8	50.1	155°	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	40.0																	
190.7	189.9	188.5	187.2	181.6	174.5	153.1	117.2	85.2	55.7	42.2	157.5°	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	41.1																		
192.3	191.4	190.4	189.4	185.0	180.1	151.6	111.8	74.5	44.9	40.3	160°	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	42.2																			
196.5	195.5	195.0	194.5	191.9	187.7	151.6	106.2	62.0	39.5	40.0	162.5°	165°	167.5°	170°	172.5°	175°	177.5°	180°	43.2																				
230.0	227.3	226.5	228.5	221.2	200.4	152.6	99.4	48.6	37.8	40.3	165°	167.5°	170°	172.5°	175°	177.5°	180°	44.0																					
323.4	326.1	319.3	315.9	303.2	231.9	153.3	89.1	39.5	37.6	39.8	167.5°	170°	172.5°	175°	177.5°	180°	44.4																						
417.9	417.9	415.5	410.1	394.5	285.6	156.7	72.7	36.1	37.1	39.3	170°	172.5°	175°	177.5°	180°	44.5																							
464.0	461.1	458.7	455.5	431.8	323.0	161.8	53.7	34.7	36.9	38.8	172.5°	175°	177.5°	180°	44.9																								
472.4	467.7	464.5	460.4	428.9	324.9	164.1	40.3	33.2	36.9	37.6	175°	177.5°	180°	45.5																									
445.0	440.2	436.0	429.1	390.8	294.2	153.1	33.0	32.2	35.9	36.4	177.5°	180°	45.7																										
360.5	354.7	351.5	348.1	322.7	258.3	123.8	29.5	31.0	34.2	35.2	180°	45.6																											
206.3	199.9	196.3	197.0	181.6	204.3	98.9	27.1	29.3	32.2	33.7	45.6																												
111.1	104.3	102.0	95.0	81.0	103.0	76.1	24.9	27.1	29.3	30.8	45.6																												
54.9	52.5	53.2	49.8	42.2	31.7	49.1	22.2	24.2	26.4	27.3	45.6																												
19.0	18.6	18.3	18.1	17.6	16.8	22.5	19.0	20.8	22.5	23.4	45.6																												
11.7	11.5	11.7	11.5	11.2	13.0	14.4	15.1	16.6	18.8	19.0	45.6																												
7.1	7.1	7.1	7.1	7.1	9.0	10.3	11.7	13.0	14.4	15.6	45.6																												
3.4	3.4	3.4	3.4	3.7	6.1	6.8	8.5	9.0	10.3	11.2	45.6																												
0.7	0.7	0.7	0.7	1.0	3.2	4.1	5.1	5.4	5.4	6.1	45.6																												
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.6																												
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.6																												
0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	45.6																												
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	45.6																												
1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	45.6																												
2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	45.6																												
3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	45.6																												
4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	45.6																												
5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	45.6																												

'173616
 ENT-FXX-LED-E1-BL4-7030-ULG-BBB

REPORT NUMBER: P173616
 CATALOG NUMBER: ENT-FXX-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°	275.6	275.6
8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	2.5°	276.1	275.6
9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	5°	276.8	276.3
11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	7.5°	274.9	275.1
13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	10°	270.7	271.4
15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	12.5°	264.1	265.6
17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	15°	253.1	255.4
20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	17.5°	238.5	241.2
22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	20°	220.2	221.4
25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	22.5°	197.7	198.2
27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	25°	174.1	174.1
29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	27.5°	152.1	150.9
32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	30°	131.1	127.9
34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	32.5°	108.9	103.5
35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35°	86.4	82.0
37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.5°	67.1	62.3
38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	40°	51.5	47.9
40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	42.5°	43.4	42.7
41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	45°	41.5	42.5
42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	47.5°	41.7	43.0
43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	50°	42.0	43.2
44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	52.5°	42.0	42.7
44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	55°	41.5	41.5
44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	57.5°	40.5	40.3
44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	60°	39.8	39.8
45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	62.5°	38.6	38.6
45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	65°	36.6	36.9
45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	67.5°	34.7	34.7
										70°	32.2	32.2
										72.5°	29.8	30.8
										75°	28.1	29.8
										77.5°	24.7	26.4
										80°	20.3	20.5
										82.5°	16.1	15.6
										85°	11.5	10.7
										87.5°	6.1	5.9
										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: P173616

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

.ED-E1-BL4-7030-ULG-BBB

tinued):

180°
275.6
275.4
276.1
274.9
271.7
266.6
254.9
241.2
220.7
197.5
173.1
150.1
126.9
103.5
80.8
60.8
47.6
43.0
42.5
43.2
43.4
42.7
41.5
40.8
39.8
38.6
36.9
34.7
32.7
31.2
30.5
27.3
20.5
14.9
10.7
6.1
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

