

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: P173381

Luminaire Tested: **ENC-FXX-LED-E1-BL4-7050-ULG-CWB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P173381
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: ENC-FXX-LED-E1-BL4-7050-ULG-CWB
Description: ENTRI LED LUMINAIRE WITH UPLIGHT, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (14) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1535.1 lumens
Efficiency: N/A
Efficacy: 279.1 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

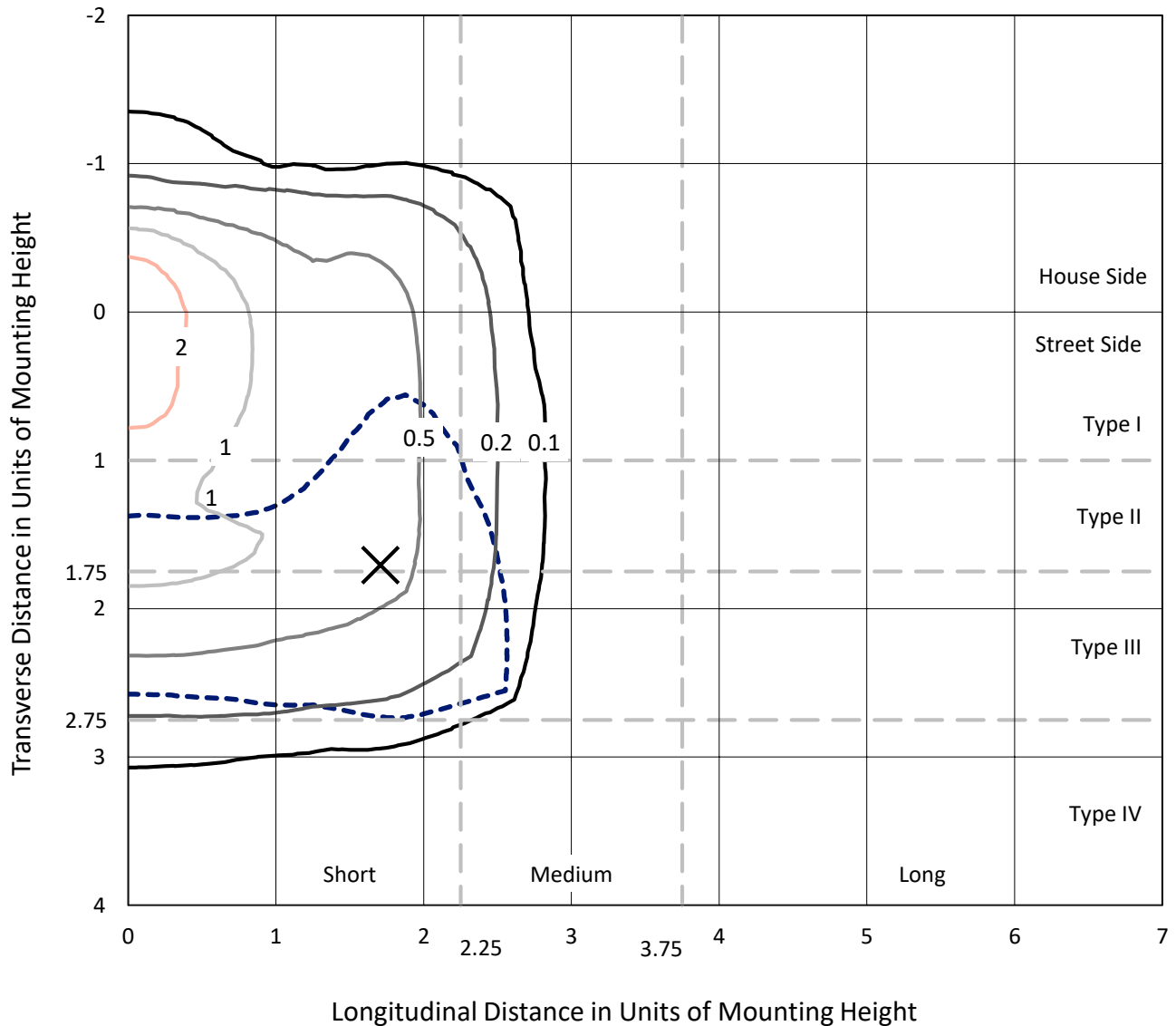


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

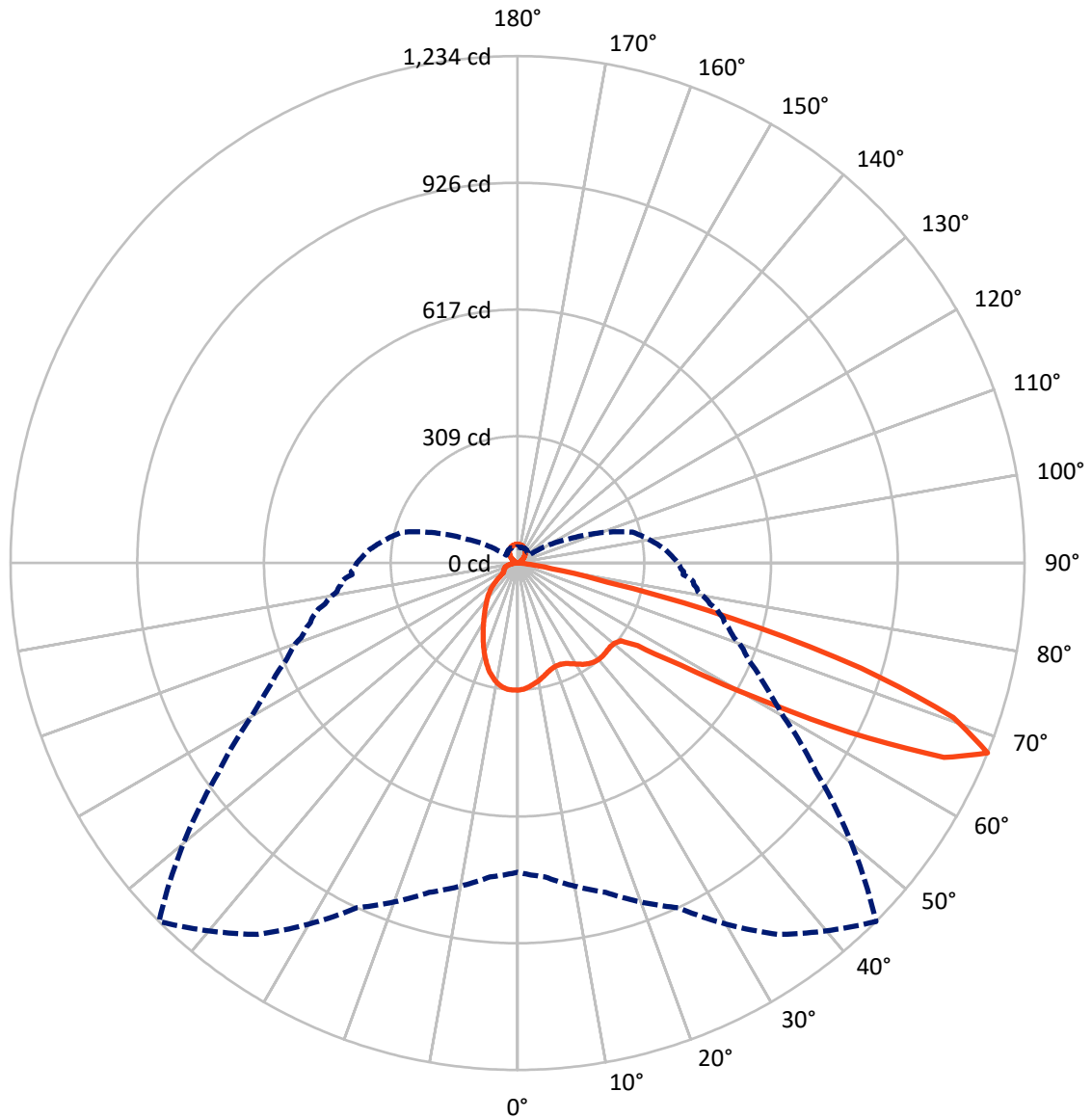


Based on 10 foot mounting height. Maximum calculated value = 3.1 fc
 Type III - Short - Semi-Cutoff

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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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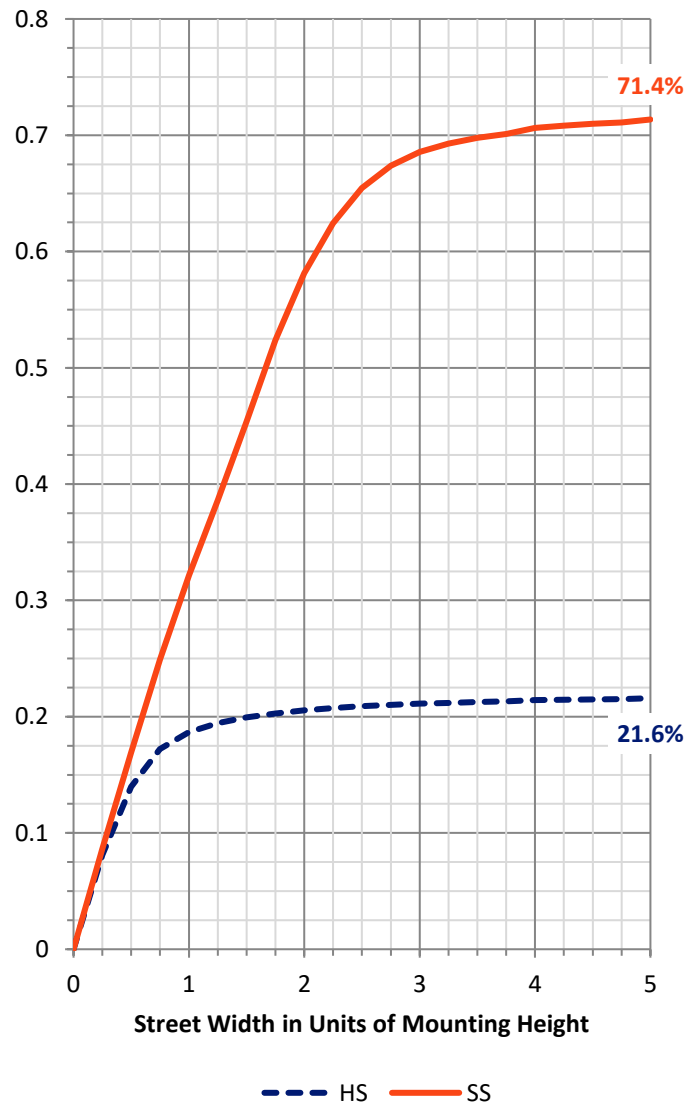
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	335.8	51.1	386.9
	% Fixture	21.9	3.3	25.2
Street Side	Lumens	1097.2	51.1	1148.3
	% Fixture	71.5	3.3	74.8
Total	Lumens	1433.0	102.1	1535.1
	% Fixture	93.3	6.7	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.8	1.9
10°-20°	77.4	5.0
20°-30°	111.6	7.3
30°-40°	142.4	9.3
40°-50°	168.1	10.9
50°-60°	269.5	17.6
60°-70°	453.6	29.6
70°-80°	168.7	11.0
80°-90°	12.8	0.8
90°-100°	0.4	0.0
100°-110°	4.0	0.3
110°-120°	8.2	0.5
120°-130°	13.9	0.9
130°-140°	19.4	1.3
140°-150°	21.2	1.4
150°-160°	18.4	1.2
160°-170°	12.4	0.8
170°-180°	4.3	0.3
0°-90°	1433.0	93.3
0°-180°	1535.1	100.0



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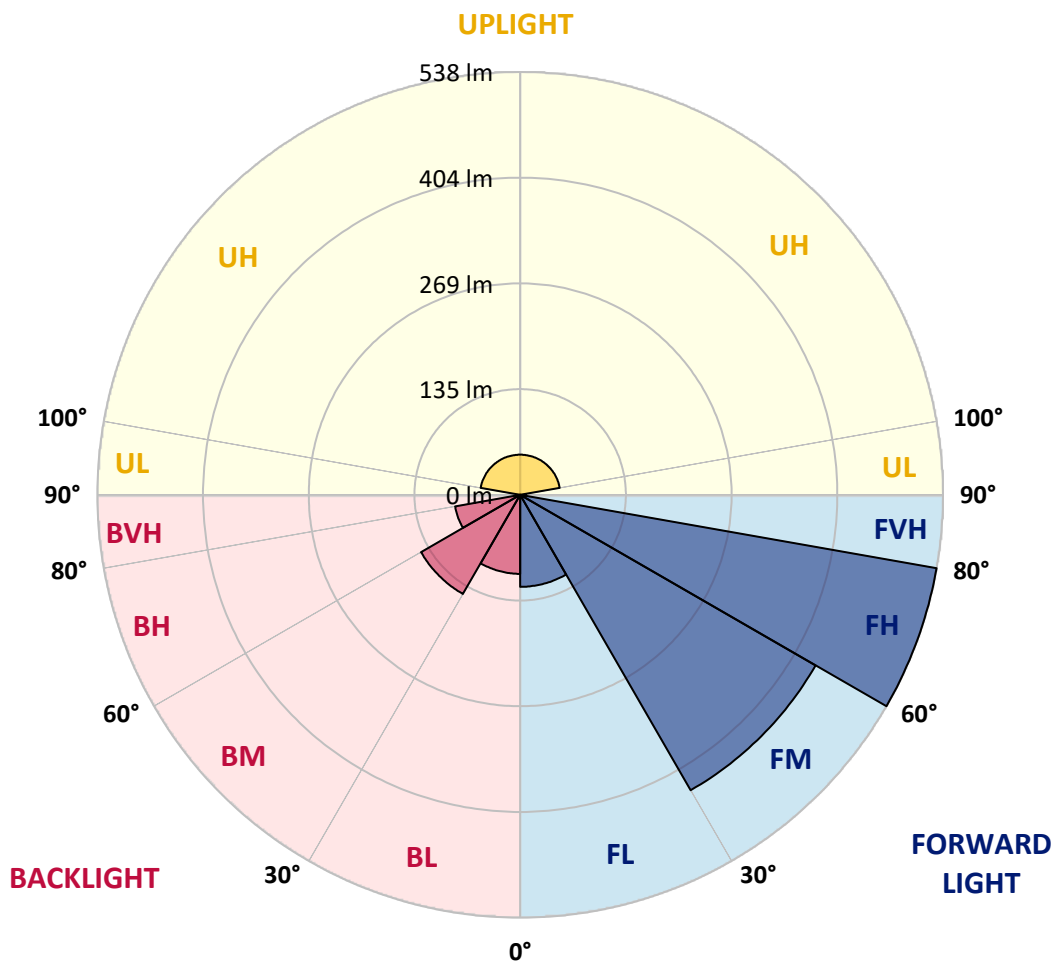
CATALOG NUMBER: ENC-FXX-LED-E1-BL4-7050-ULG-CWB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	117.1	7.6			
FM	(30°-60°)	434.2	28.3			
FH	(60°-80°)	538.2	35.1			G0/660
FVH	(80°-90°)	7.6	0.5			G0/10
BL	(0°-30°)	100.7	6.6	B0/110		
BM	(30°-60°)	145.8	9.5	B0/220		
BH	(60°-80°)	84.1	5.5	B0/110		G0/110
BVH	(80°-90°)	5.2	0.3			G0/10
UL	(90°-100°)	0.4	0.0		U1/10	
UH	(100°-180°)	51.1	3.3		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°	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6
2.5°	305.2	305.2	305.8	305.8	306.6	307.2	306.6	307.7	307.7	307.4	308.0
5°	300.8	300.8	301.1	301.1	301.7	302.5	301.9	303.0	302.8	303.0	303.0
7.5°	295.6	295.6	296.2	295.9	296.2	296.7	295.4	296.2	296.2	296.5	296.2
10°	289.1	289.6	290.2	289.9	289.9	290.2	288.0	288.8	288.5	288.5	288.2
12.5°	283.0	282.5	283.0	283.6	283.3	283.3	281.1	280.6	280.6	280.6	280.8
15°	276.7	277.3	278.1	277.3	276.7	275.6	273.4	272.9	272.9	272.9	273.2
17.5°	275.4	275.4	275.9	275.1	272.9	270.7	266.3	265.5	265.5	265.2	265.2
20°	279.2	278.9	279.7	278.1	273.2	267.4	260.5	259.2	259.2	259.2	258.9
22.5°	287.1	287.1	288.5	286.6	278.6	267.7	257.5	255.3	255.1	254.8	254.2
25°	302.5	302.2	303.0	298.1	286.6	271.2	256.7	253.4	253.1	252.6	252.0
27.5°	320.3	320.9	322.5	315.1	298.1	277.5	260.3	254.8	254.2	253.4	252.3
30°	337.9	339.5	342.5	334.6	311.3	285.5	265.7	259.4	258.3	257.3	255.3
32.5°	360.1	359.5	364.5	352.4	322.8	294.0	271.5	263.8	262.5	260.8	258.3
35°	383.7	384.8	385.9	366.4	332.4	300.8	275.1	266.3	264.6	263.0	259.4
37.5°	407.3	407.6	405.1	377.6	338.1	305.0	277.0	266.8	264.6	262.2	258.1
40°	428.9	428.1	420.7	386.2	341.4	307.2	277.8	265.7	263.0	260.5	255.9
42.5°	441.3	440.4	431.1	390.0	341.7	306.9	277.8	264.6	261.6	258.6	253.4
45°	446.5	445.9	435.2	390.5	339.8	305.2	276.2	263.5	260.5	257.8	252.3
47.5°	447.0	447.0	436.1	389.7	338.1	304.1	276.2	264.9	262.5	260.3	256.2
50°	444.6	444.8	436.3	391.9	339.5	306.6	278.9	268.2	265.7	263.5	258.9
52.5°	473.6	470.9	452.0	401.8	348.6	314.6	288.2	278.6	277.8	276.5	272.9
55°	695.8	698.0	594.6	463.5	386.7	355.4	344.5	342.5	348.6	350.8	350.8
57.5°	883.4	876.2	837.3	676.3	505.7	468.2	472.5	477.2	486.0	489.8	492.5
60°	929.2	929.7	928.6	882.8	746.5	661.0	639.6	619.3	618.5	611.3	605.8
62.5°	923.7	928.1	948.6	959.0	972.5	909.7	779.1	722.9	712.0	698.5	679.3
65°	883.9	890.5	923.4	974.1	1089.9	1141.4	873.2	772.6	755.6	739.4	707.0
67.5°	753.1	767.3	830.4	926.2	1103.9	1234.4	888.6	748.4	725.9	704.8	666.4
70°	464.9	472.3	569.6	747.3	1000.2	1125.5	806.8	635.2	606.6	579.8	527.4
72.5°	300.0	297.6	314.0	421.0	735.0	874.6	554.8	422.3	399.0	377.6	343.9
75°	210.1	210.3	202.9	200.8	340.9	541.7	251.2	180.5	170.0	165.6	158.5
77.5°	136.9	138.5	136.6	141.8	136.6	225.1	115.5	84.7	80.6	77.9	73.5
80°	82.6	88.0	89.7	90.8	92.1	85.0	68.6	49.9	45.0	40.3	33.2
82.5°	14.5	14.2	19.7	26.6	34.8	39.8	28.8	18.1	17.0	16.4	15.1
85°	0.0	0.0	0.3	0.3	0.6	1.9	3.0	3.6	3.3	3.6	3.9
87.5°	0.0	0.0	0.0	0.3	0.3	0.6	0.6	0.6	0.6	0.6	0.6
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°	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6
2.5°	308.0	307.7	307.4	307.4	308.0	308.0	307.7	307.7	308.0	307.7	308.3
5°	303.3	303.0	303.0	302.8	303.0	303.3	303.0	303.0	303.3	303.0	303.6
7.5°	295.9	296.2	295.9	295.9	296.2	296.5	296.2	296.2	296.2	296.2	295.9
10°	288.2	288.2	288.0	288.0	288.5	288.2	288.0	288.0	288.2	288.5	288.0
12.5°	280.6	281.1	281.1	280.0	280.3	280.6	280.6	280.3	280.3	281.1	280.3
15°	272.9	273.2	272.9	273.2	272.6	272.3	272.6	272.6	272.1	271.8	271.8
17.5°	265.2	264.9	264.9	264.4	264.1	264.1	263.8	264.1	263.5	263.8	263.0
20°	258.3	258.1	257.8	257.8	257.0	257.0	257.0	256.7	256.2	256.2	255.9
22.5°	254.2	254.0	253.7	253.1	252.9	252.6	252.6	252.3	251.8	251.5	251.2
25°	252.0	251.8	251.2	250.7	250.4	250.1	250.1	249.8	249.3	248.7	248.5
27.5°	252.3	251.8	251.2	250.7	250.4	249.8	249.6	249.3	248.7	248.2	247.6
30°	254.8	253.7	252.6	251.8	250.9	250.1	249.6	249.3	248.5	247.6	246.8
32.5°	257.3	255.9	254.2	252.6	251.2	249.8	249.0	248.2	247.1	245.7	244.9
35°	258.1	256.4	254.0	252.6	250.7	249.0	247.6	246.5	244.6	243.0	241.6
37.5°	256.2	254.2	251.8	249.8	247.9	245.7	244.1	242.4	241.1	239.1	237.8
40°	253.1	250.9	248.5	245.7	243.8	241.6	240.0	238.6	236.7	235.0	234.0
42.5°	250.7	248.2	245.4	243.3	241.1	238.9	237.0	235.6	233.7	231.7	230.4
45°	249.8	247.4	245.2	242.4	240.2	238.6	237.0	235.0	233.4	231.7	230.1
47.5°	254.2	252.0	249.8	247.6	245.7	243.8	242.2	240.2	238.3	236.1	234.5
50°	256.7	254.2	252.3	249.8	247.6	245.7	244.1	242.2	240.8	238.6	237.0
52.5°	274.5	271.2	271.8	269.6	269.6	267.4	269.0	266.6	267.9	266.3	268.8
55°	350.0	351.1	357.9	359.0	361.7	361.4	363.1	370.3	367.5	363.9	365.0
57.5°	485.2	487.6	491.2	487.9	490.4	490.9	495.6	493.6	492.0	490.9	487.4
60°	602.5	599.3	594.0	587.7	585.3	582.5	577.9	577.9	571.8	569.9	565.2
62.5°	671.4	661.8	655.2	645.0	637.9	633.0	624.7	618.5	610.2	603.9	596.5
65°	693.9	677.7	666.1	653.5	642.3	631.6	619.8	610.7	600.6	593.7	582.0
67.5°	650.2	633.8	614.3	600.9	589.1	575.6	557.3	546.0	537.3	524.1	518.3
70°	506.3	489.0	464.6	458.0	439.9	419.0	400.4	389.2	376.3	367.2	357.6
72.5°	321.1	301.7	291.0	283.0	271.2	254.0	237.8	231.2	220.0	217.5	211.2
75°	150.8	137.7	134.9	133.0	120.1	117.7	112.7	110.5	105.3	102.6	101.5
77.5°	67.5	64.5	59.5	58.1	54.0	49.9	45.0	42.8	40.0	38.4	36.2
80°	30.7	27.7	25.8	24.4	23.9	22.5	21.4	20.6	19.7	19.7	18.4
82.5°	14.8	14.2	13.7	13.7	12.9	12.9	12.1	11.8	11.5	11.2	11.2
85°	4.1	4.1	4.1	4.4	4.4	4.4	4.4	4.4	4.4	4.7	4.7
87.5°	0.6	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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: P173381

CATALOG NUMBER: ENC-FXX-LED-E1-BL4-7050-ULG-CWB

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



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CATALOG NUMBER: ENC-FXX-LED-E1-BL4-7050-ULG-CWB

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6
2.5°	308.0	308.0	308.0	308.5	308.3	309.1	309.1	309.1	309.6	309.9	309.6
5°	303.6	303.6	303.6	303.9	303.9	304.4	304.4	305.0	305.0	305.2	305.2
7.5°	296.5	296.7	296.7	297.3	297.0	297.3	297.3	298.1	298.1	298.4	298.4
10°	288.2	288.5	288.5	288.5	288.8	289.1	289.1	289.6	289.9	289.9	290.4
12.5°	280.6	280.3	280.6	280.3	281.1	281.1	281.4	281.1	281.4	281.6	281.9
15°	272.1	272.1	271.8	272.1	272.1	271.8	271.5	271.8	272.3	272.3	272.3
17.5°	263.5	262.7	262.7	262.7	262.5	261.9	262.5	262.2	262.2	262.5	262.2
20°	255.6	255.3	255.1	254.8	254.5	253.7	253.7	253.7	253.4	253.4	253.4
22.5°	250.7	250.4	250.1	249.8	248.7	248.2	247.9	247.6	247.1	246.8	246.5
25°	247.9	247.4	246.8	246.3	245.4	244.6	243.8	243.5	243.0	242.4	241.6
27.5°	247.1	246.5	245.4	244.9	243.8	243.0	242.2	241.3	240.5	239.7	238.9
30°	245.7	244.9	243.8	243.0	242.2	240.8	239.7	238.9	237.5	236.7	235.6
32.5°	243.8	242.7	241.6	240.5	239.4	238.1	236.7	235.6	234.5	233.4	232.0
35°	240.5	239.1	237.5	236.4	235.0	233.7	232.6	230.6	229.8	228.4	227.1
37.5°	236.1	234.8	233.4	232.0	230.4	229.3	227.6	226.0	225.1	224.3	222.4
40°	232.3	230.6	229.3	228.2	226.2	225.4	223.8	222.1	221.0	220.2	218.6
42.5°	228.7	227.1	225.7	224.1	222.7	221.6	220.2	218.6	217.5	216.9	215.6
45°	228.7	226.8	225.1	223.8	222.4	221.0	220.0	218.3	217.5	216.4	215.6
47.5°	232.6	230.4	228.4	226.5	224.6	223.2	221.6	220.0	218.6	217.8	216.7
50°	235.3	233.1	232.0	229.8	228.7	226.8	224.9	224.1	222.7	221.9	221.6
52.5°	268.8	267.4	267.7	262.2	261.1	263.8	259.4	263.3	262.2	258.9	258.9
55°	371.3	370.8	373.3	366.4	363.4	368.9	371.1	363.1	365.0	365.0	364.5
57.5°	490.9	487.4	483.8	484.6	480.2	483.5	479.4	474.4	476.4	474.7	469.0
60°	562.2	560.0	554.8	549.9	545.2	540.8	537.0	532.6	530.4	526.6	522.5
62.5°	591.0	585.3	579.0	572.3	565.0	557.8	553.4	547.7	541.7	537.8	533.4
65°	575.6	567.2	560.3	550.7	542.8	534.0	528.2	521.6	516.1	509.6	504.1
67.5°	507.1	497.2	479.1	470.3	458.5	444.8	441.0	433.0	430.0	420.1	404.0
70°	345.3	335.4	324.4	306.6	295.1	283.3	270.4	261.1	259.7	251.8	240.0
72.5°	202.9	196.1	188.9	178.8	170.3	165.6	156.6	147.3	147.0	138.0	133.3
75°	96.0	92.4	85.3	82.8	75.1	74.6	68.8	67.7	68.8	66.1	65.6
77.5°	32.6	31.8	30.2	28.0	26.3	25.8	24.4	23.6	23.1	22.5	22.0
80°	17.8	17.3	17.0	16.2	15.6	15.3	14.5	14.2	14.0	13.7	13.4
82.5°	10.7	11.0	10.4	9.9	9.9	9.3	9.1	8.8	8.5	8.5	8.5
85°	4.4	4.7	4.4	4.1	3.9	4.1	4.1	3.9	3.6	3.9	3.9
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
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°

NUMBER: P173381
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REPORT NUMBER: P
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DISTRIBUTION (continued):											CANDELA DISTRIBUTION		
87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°		87°	
309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6	309.6		112.5°	6.9
309.1	308.8	308.8	308.5	308.3	308.8	309.4	310.2	309.6	310.2	310.5		115°	8.1
304.7	304.7	304.7	305.0	304.7	305.5	306.6	308.3	308.5	309.6	310.5		117.5°	9.6
297.6	297.6	297.8	298.1	297.8	298.9	300.8	302.8	304.1	306.1	307.7		120°	11.3
289.3	289.3	289.3	289.3	289.6	291.0	292.4	294.6	296.7	299.8	302.2		122.5°	13.2
281.9	281.1	281.4	281.9	281.4	281.4	282.7	284.4	285.8	289.6	294.0		125°	15.5
272.1	272.1	271.5	271.8	270.4	270.1	270.7	271.8	272.9	276.2	280.8		127.5°	17.9
261.6	261.6	261.6	260.8	259.7	257.0	256.7	256.7	256.7	259.2	264.6		130°	20.4
252.3	252.3	251.8	251.2	248.7	244.1	240.2	238.6	238.1	242.2	244.6		132.5°	22.8
245.7	245.4	244.3	243.8	240.0	232.6	226.5	221.9	220.5	221.9	222.7		135°	25.2
240.5	240.0	238.9	237.8	232.6	222.4	212.8	204.9	201.0	199.9	197.2		137.5°	27.6
237.5	236.7	235.0	234.0	227.1	214.2	201.6	191.1	184.0	178.8	173.9		140°	29.9
234.2	232.8	231.2	229.5	221.9	207.6	193.1	180.2	167.6	158.5	151.4		142.5°	32.1
230.4	229.0	227.3	225.7	217.2	201.6	186.2	170.3	152.8	140.4	129.7		145°	34.0
225.7	224.3	222.7	220.8	212.3	196.7	181.6	160.7	139.6	123.7	109.7		147.5°	35.6
221.0	219.7	218.0	216.1	207.6	194.2	178.8	151.7	127.5	108.0	89.7		150°	37.3
217.5	216.1	214.5	212.8	205.1	193.1	177.5	144.0	116.8	92.7	71.6		152.5°	38.8
214.5	213.1	211.7	210.1	203.5	193.6	174.4	137.4	106.4	77.3	56.2		155°	40.0
214.2	213.4	211.7	210.3	204.0	196.1	172.0	131.6	95.7	62.5	47.4		157.5°	41.1
216.1	215.0	213.9	212.8	207.9	202.4	170.3	125.6	83.7	50.5	45.3		160°	42.2
220.8	219.7	219.1	218.6	215.6	210.9	170.3	119.3	69.7	44.4	45.0		162.5°	43.2
258.3	255.3	254.5	256.7	248.5	225.1	171.4	111.6	54.6	42.5	45.3		165°	44.0
363.4	366.4	358.7	354.9	340.6	260.5	172.2	100.1	44.4	42.2	44.7		167.5°	44.4
469.5	469.5	466.8	460.7	443.2	320.9	176.1	81.7	40.6	41.7	44.2		170°	44.5
521.4	518.1	515.3	511.7	485.2	362.8	181.8	60.3	38.9	41.4	43.6		172.5°	44.9
530.7	525.5	521.9	517.2	481.9	365.0	184.3	45.3	37.3	41.4	42.2		175°	45.5
500.0	494.5	489.8	482.1	439.1	330.5	172.0	37.0	36.2	40.3	40.9		177.5°	45.7
405.1	398.5	394.9	391.1	362.5	290.2	139.1	33.2	34.8	38.4	39.5		180°	45.6
231.7	224.6	220.5	221.3	204.0	229.5	111.1	30.4	32.9	36.2	37.8			
124.8	117.1	114.6	106.7	91.0	115.7	85.6	28.0	30.4	32.9	34.5			
61.7	59.0	59.8	55.9	47.4	35.6	55.1	25.0	27.2	29.6	30.7			
21.4	20.9	20.6	20.3	19.7	18.9	25.2	21.4	23.3	25.2	26.3			
13.2	12.9	13.2	12.9	12.6	14.5	16.2	17.0	18.6	21.1	21.4			
8.0	8.0	8.0	8.0	8.0	10.1	11.5	13.2	14.5	16.2	17.5			
3.9	3.9	3.9	3.9	4.1	6.9	7.7	9.6	10.1	11.5	12.6			
0.8	0.8	0.8	0.8	1.1	3.6	4.7	5.8	6.0	6.0	6.9			
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			
0.5	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			
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			
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			

'173381
 ENC-FXX-LED-E1-BL4-7050-ULG-CWB

REPORT NUMBER: P173381
 CATALOG NUMBER: ENC-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°	309.6	309.6
8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	2.5°	310.2	309.6
9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	5°	311.0	310.5
11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	7.5°	308.8	309.1
13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	10°	304.1	305.0
15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	12.5°	296.7	298.4
17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	17.9	15°	284.4	286.9
20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	17.5°	267.9	271.0
22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	20°	247.4	248.7
25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	25.2	22.5°	222.1	222.7
27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	25°	195.6	195.6
29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.9	27.5°	170.8	169.5
32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	32.1	30°	147.3	143.7
34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	32.5°	122.3	116.3
35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35°	97.1	92.1
37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.5°	75.4	69.9
38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	40°	57.9	53.7
40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	42.5°	48.8	48.0
41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	45°	46.6	47.7
42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	47.5°	46.9	48.3
43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	50°	47.2	48.5
44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	44.0	52.5°	47.2	48.0
44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	55°	46.6	46.6
44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	57.5°	45.5	45.3
44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	60°	44.7	44.7
45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	62.5°	43.3	43.3
45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	45.7	65°	41.2	41.4
45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	67.5°	38.9	38.9
										70°	36.2	36.2
										72.5°	33.4	34.5
										75°	31.5	33.4
										77.5°	27.7	29.6
										80°	22.8	23.1
										82.5°	18.1	17.5
										85°	12.9	12.1
										87.5°	6.9	6.6
										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: P173381

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

LED-E1-BL4-7050-ULG-CWB

tinued):

180°
309.6
309.4
310.2
308.8
305.2
299.5
286.3
271.0
247.9
221.9
194.5
168.7
142.6
116.3
90.8
68.3
53.5
48.3
47.7
48.5
48.8
48.0
46.6
45.8
44.7
43.3
41.4
38.9
36.7
35.1
34.3
30.7
23.1
16.7
12.1
6.9
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

