

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: P173650

Luminaire Tested: **ENT-FXX-LED-E1-GZW-BBB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P173650
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33649)
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-GZW-BBB
Description: ENTRI LED LUMINAIRE, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - WALL GRAZER WIDE
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1488.6 lumens
Efficiency: N/A
Efficacy: 270.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

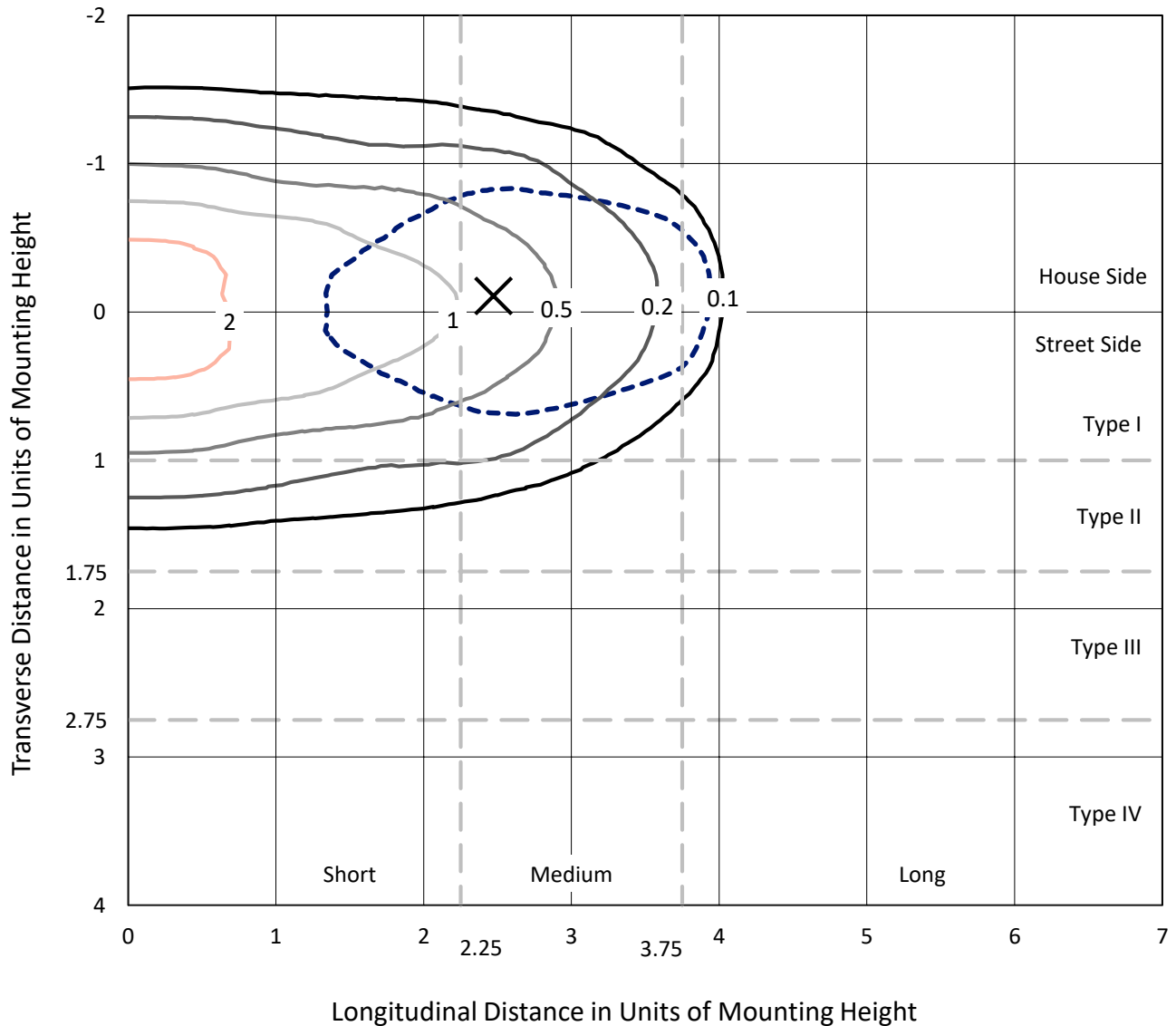
Input Watts (W): 5.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

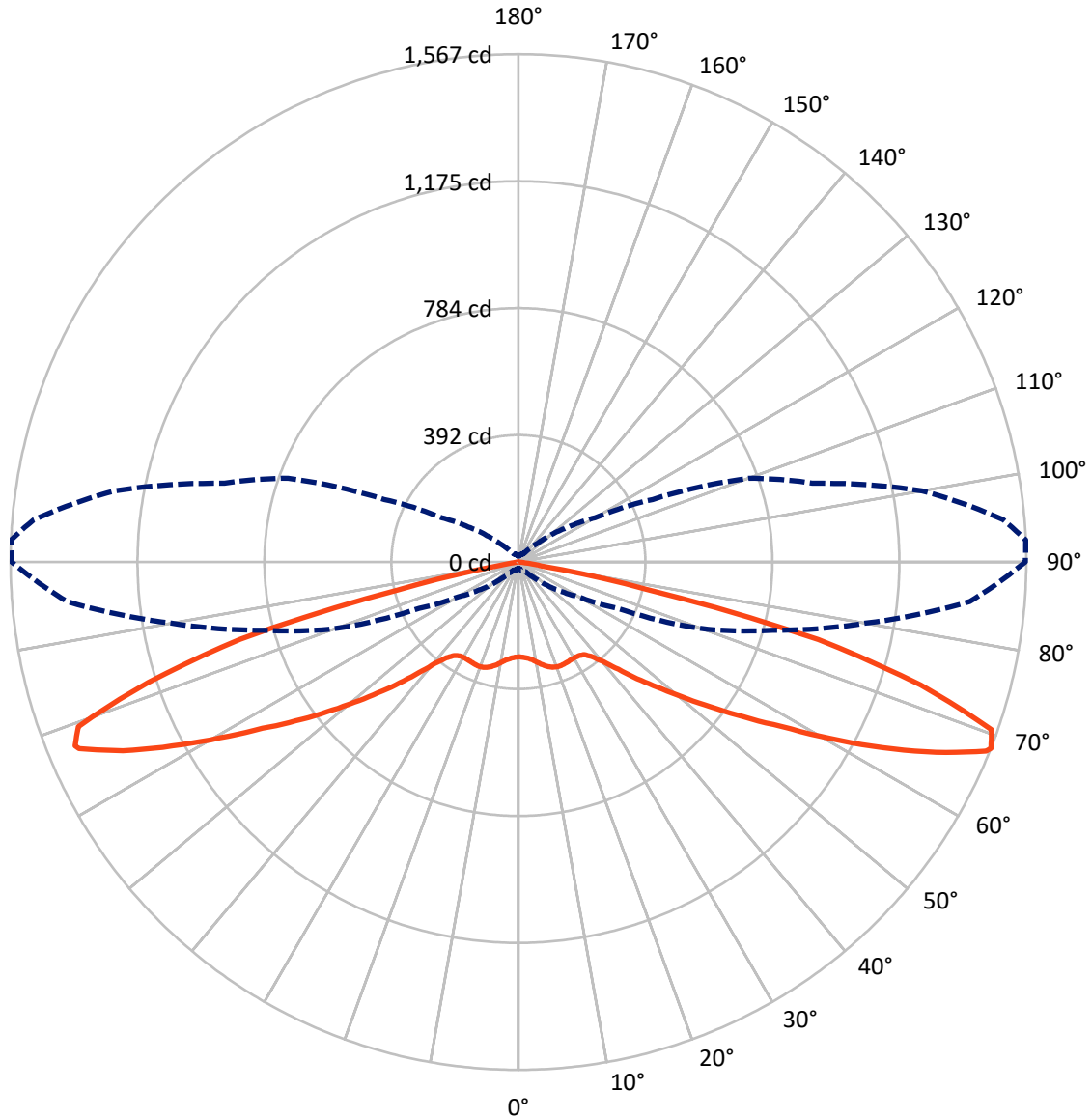
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3 fc
 Type I - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 92.5-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	777.7	0.0	777.7
	% Fixture	52.2	0.0	52.2
Street Side	Lumens	711.0	0.0	711.0
	% Fixture	47.8	0.0	47.8
Total	Lumens	1488.6	0.0	1488.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.8	1.9
10°-20°	91.0	6.1
20°-30°	147.6	9.9
30°-40°	183.5	12.3
40°-50°	228.1	15.3
50°-60°	280.7	18.9
60°-70°	331.8	22.3
70°-80°	185.8	12.5
80°-90°	11.3	0.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	1488.6	100.0
0°-180°	1488.6	100.0



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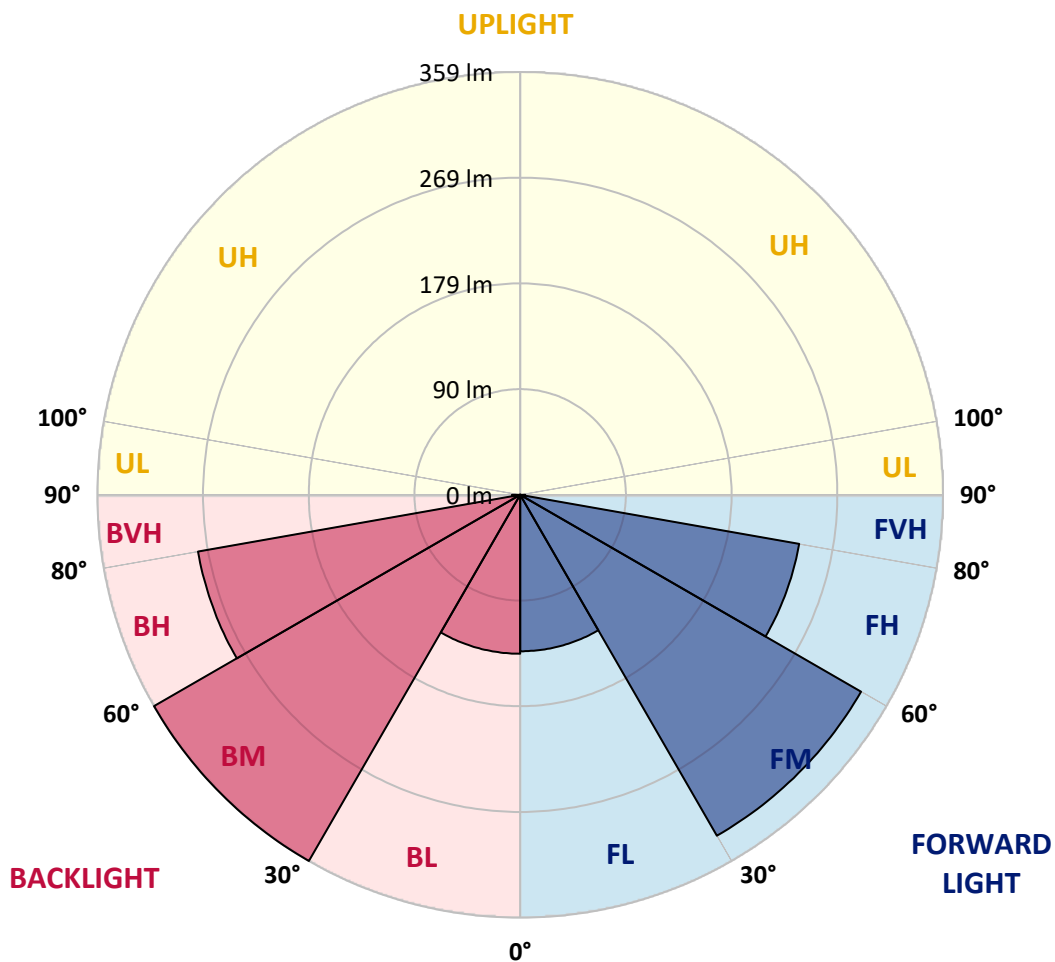
CATALOG NUMBER: ENT-FXX-LED-E1-GZW-BBB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	132.7	8.9			
FM (30°-60°)	333.8	22.4			
FH (60°-80°)	240.2	16.1			G0/660
FVH (80°-90°)	4.3	0.3			G0/10
BL (0°-30°)	134.7	9.1	B1/500		
BM (30°-60°)	358.5	24.1	B1/1000		
BH (60°-80°)	277.4	18.6	B1/500		G1/500
BVH (80°-90°)	7.0	0.5			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6
2.5°	294.0	294.0	294.0	294.3	294.5	295.1	294.8	295.3	294.5	295.6	295.6
5°	297.5	297.7	298.0	298.0	298.5	298.8	298.5	299.4	298.5	299.6	299.9
7.5°	300.7	300.7	300.9	301.2	301.7	302.3	302.6	303.4	303.1	304.1	305.2
10°	303.1	302.8	303.1	303.6	305.0	305.8	306.8	307.9	308.4	309.5	311.1
12.5°	304.1	303.9	304.7	306.0	307.4	309.0	310.6	313.0	314.6	316.2	318.6
15°	303.6	303.6	304.7	306.3	309.0	311.9	314.9	318.1	321.0	324.5	326.9
17.5°	298.5	299.1	300.7	303.4	307.4	311.9	316.7	322.1	326.9	331.7	334.9
20°	289.4	290.0	292.9	296.1	301.5	308.2	315.6	323.4	330.9	337.3	341.8
22.5°	278.2	277.7	280.4	284.7	291.9	299.9	309.5	321.0	331.1	340.2	346.7
25°	260.9	260.9	263.8	269.1	276.9	286.8	298.5	313.2	326.9	338.6	347.7
27.5°	242.4	242.7	246.4	251.0	259.8	269.1	282.8	299.9	316.4	332.0	345.3
30°	224.0	224.8	228.0	232.5	241.9	251.8	265.7	282.5	300.4	319.7	337.8
32.5°	205.0	206.1	208.7	214.1	224.2	235.2	249.4	264.3	281.4	302.6	326.1
35°	187.1	187.9	190.0	196.5	206.9	218.6	234.4	248.8	266.2	285.7	311.7
37.5°	170.3	171.0	173.5	180.1	190.6	202.3	217.8	234.1	252.0	271.3	297.0
40°	152.1	153.9	157.2	163.6	173.2	186.6	202.3	219.4	238.4	260.3	286.5
42.5°	135.5	137.1	140.1	145.7	155.3	169.5	186.0	203.6	224.2	249.1	278.8
45°	120.3	121.6	124.6	129.6	139.8	151.0	166.0	184.4	205.8	234.4	270.5
47.5°	105.6	106.9	110.1	116.3	124.6	135.5	148.9	165.2	185.0	214.1	254.7
50°	90.9	92.2	95.4	101.6	109.6	120.3	132.6	147.3	166.8	191.9	231.7
52.5°	74.8	76.2	79.4	85.5	93.3	103.4	116.0	131.2	149.4	173.2	206.1
55°	57.5	59.3	62.3	67.3	75.6	85.8	98.4	114.9	133.4	156.6	187.1
57.5°	41.4	42.8	46.2	50.2	57.2	67.9	79.1	96.2	116.8	140.6	170.8
60°	30.2	31.5	33.9	37.1	42.0	49.7	59.6	75.6	98.4	125.1	156.1
62.5°	25.1	26.2	28.6	31.8	34.5	38.2	44.1	56.4	78.6	108.2	140.9
65°	22.2	23.0	25.1	28.3	30.5	32.1	34.5	42.8	60.9	90.1	125.9
67.5°	19.8	20.6	22.2	24.9	27.3	28.1	29.4	35.0	47.9	73.2	110.1
68°	19.5	20.3	21.7	24.1	26.5	27.3	28.6	34.2	46.5	69.8	105.8
70°	18.2	18.7	20.0	21.9	23.8	24.3	25.9	31.5	43.6	60.9	85.8
72.5°	16.6	16.8	17.6	19.2	21.1	21.4	23.0	27.5	34.2	44.9	63.9
75°	13.9	14.2	15.2	16.6	17.6	18.2	18.7	20.9	23.2	27.8	37.7
77.5°	10.7	11.2	12.0	12.8	14.4	15.0	14.4	16.0	17.1	19.0	23.0
80°	6.4	6.4	7.2	8.0	8.8	10.2	9.6	11.2	12.0	13.1	15.5
82.5°	1.1	1.3	1.3	1.9	2.4	2.9	3.2	4.0	5.1	6.2	8.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	92.5°	95°	100°
0°	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6
2.5°	294.0	294.8	294.8	294.5	294.5	294.5	293.7	294.0	294.3	295.1	294.0
5°	298.3	299.1	298.8	298.5	298.5	298.5	297.5	297.7	298.0	298.5	297.5
7.5°	303.9	304.7	305.0	305.0	305.0	305.5	303.9	303.9	304.4	305.0	303.4
10°	312.2	312.2	313.0	313.5	314.0	314.6	313.5	313.0	314.0	314.0	312.2
12.5°	319.9	320.5	321.8	322.9	323.1	324.2	324.2	323.9	324.7	324.5	322.3
15°	328.7	329.3	330.3	331.7	332.0	333.0	333.0	333.3	334.1	334.6	331.4
17.5°	337.0	337.8	337.8	338.1	338.6	339.4	340.0	340.2	341.1	341.6	338.4
20°	344.0	344.8	343.4	342.4	341.3	341.8	342.9	344.0	344.5	344.8	340.8
22.5°	349.3	349.6	347.5	344.5	341.6	341.3	342.6	344.5	345.1	344.8	339.2
25°	352.3	353.1	350.9	346.4	341.1	339.2	340.5	342.9	344.0	342.9	336.2
27.5°	352.3	355.2	354.1	349.3	342.1	337.0	337.8	341.6	342.4	341.1	333.3
30°	349.6	355.7	357.1	354.1	346.7	337.8	336.8	341.1	342.1	339.7	332.0
32.5°	344.3	355.5	360.8	361.1	355.2	344.3	338.9	343.2	344.0	341.1	334.6
35°	336.8	355.2	365.6	370.7	368.8	357.9	348.5	351.2	350.7	347.5	345.1
37.5°	328.5	355.2	372.6	384.3	388.6	383.0	370.7	369.4	370.7	365.9	364.6
40°	319.4	356.0	382.5	403.3	416.1	418.0	407.1	403.3	404.9	400.4	402.2
42.5°	314.0	357.1	395.6	425.5	450.4	469.3	464.5	453.3	452.5	453.0	457.0
45°	311.4	359.8	408.7	450.6	485.4	527.6	532.1	512.1	513.2	516.1	522.3
47.5°	308.4	364.8	423.9	476.8	523.6	582.9	605.1	578.1	576.0	586.9	588.8
50°	297.7	371.0	441.3	506.2	563.7	645.2	680.2	652.7	653.2	663.4	659.6
52.5°	273.2	371.3	459.7	535.6	603.8	706.7	759.9	741.7	740.3	750.2	730.5
55°	239.2	354.4	474.7	564.5	641.7	763.9	842.2	846.2	843.5	845.1	802.3
57.5°	211.9	313.0	476.3	588.8	673.8	818.1	926.6	955.5	955.8	948.8	872.9
60°	194.3	266.5	455.4	608.8	711.2	887.3	1036.8	1101.4	1105.2	1076.8	967.3
62.5°	179.6	243.0	412.4	629.4	754.2	957.4	1155.4	1261.8	1262.1	1214.8	1071.2
65°	168.1	230.1	365.1	621.7	787.4	1025.3	1281.0	1423.2	1416.3	1364.2	1169.9
67.5°	155.3	218.6	343.2	609.6	815.7	1088.1	1391.7	1555.0	1556.9	1492.7	1261.3
68°	152.6	214.4	337.6	599.5	812.5	1085.9	1397.6	1563.8	1567.0	1501.0	1265.3
70°	131.5	187.1	293.7	523.6	754.8	1027.9	1360.2	1539.0	1548.8	1475.1	1220.6
72.5°	87.7	129.4	196.2	369.9	581.6	816.8	1113.5	1289.1	1297.3	1247.7	1013.8
75°	55.6	78.6	104.3	213.3	390.7	586.1	839.5	941.9	955.5	939.2	759.1
77.5°	33.7	55.1	64.1	103.4	205.8	274.2	379.3	386.0	401.4	391.8	393.4
80°	22.2	38.2	46.8	70.3	71.4	59.1	67.1	67.6	71.6	76.2	79.4
82.5°	12.6	23.2	32.6	48.1	42.5	21.9	18.7	19.5	20.0	20.6	24.3
85°	1.9	4.3	9.1	15.0	15.2	7.2	6.7	6.2	6.4	7.0	8.8
87.5°	0.0	0.0	0.0	0.0	0.3	0.6	0.8	0.8	0.8	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6	292.6
2.5°	293.7	293.5	293.7	292.9	293.7	293.5	293.5	293.5	293.2	293.5	293.5
5°	297.0	297.0	297.0	296.4	297.0	297.0	297.0	297.0	296.7	297.0	297.2
7.5°	303.1	303.1	302.8	302.0	302.6	302.6	302.3	301.7	301.2	301.5	301.2
10°	311.4	311.9	310.3	310.3	309.5	308.4	307.6	306.8	306.6	306.0	305.0
12.5°	321.5	321.3	319.1	318.3	317.8	315.6	314.0	313.2	312.2	310.8	309.2
15°	330.6	329.6	327.9	327.1	326.4	323.9	321.8	319.9	318.6	316.7	314.3
17.5°	336.8	335.7	334.9	334.6	334.6	332.5	330.6	328.2	325.3	321.8	317.8
20°	338.1	338.1	338.4	340.0	341.6	340.8	338.6	335.7	331.4	325.8	319.7
22.5°	336.2	337.3	339.7	343.7	347.2	347.5	345.3	341.1	333.8	325.8	316.7
25°	333.0	336.0	341.1	346.7	351.5	351.5	347.7	341.6	331.7	320.2	308.2
27.5°	331.4	337.3	344.5	350.4	353.6	351.7	345.1	336.2	322.6	307.9	294.0
30°	333.3	342.4	350.1	354.1	354.7	348.5	337.0	323.9	307.9	290.3	276.1
32.5°	340.2	351.2	357.1	357.9	354.1	342.6	324.7	306.6	288.7	272.3	257.9
35°	354.4	363.7	365.9	362.7	353.3	334.1	308.4	287.0	271.0	255.5	240.6
37.5°	377.4	381.7	377.7	368.3	350.7	323.7	293.5	272.6	255.5	240.3	223.7
40°	410.0	405.2	393.7	375.2	347.7	312.2	281.7	260.9	241.9	225.0	208.5
42.5°	450.6	433.8	410.0	383.3	344.5	304.7	273.2	249.1	228.3	209.5	192.2
45°	496.1	464.8	432.4	392.4	343.4	300.2	263.0	234.7	210.3	191.6	174.5
47.5°	542.3	497.7	455.2	402.2	344.8	292.1	247.5	215.7	190.3	172.1	156.1
50°	589.1	534.5	481.6	415.1	344.0	275.8	226.4	194.0	170.5	154.2	139.8
52.5°	636.1	573.8	508.9	426.6	333.3	250.2	203.1	175.6	152.9	137.1	122.9
55°	682.4	612.1	535.6	430.1	302.3	223.2	183.6	157.2	134.7	118.7	103.2
57.5°	726.2	646.5	554.3	409.7	264.1	202.1	166.3	140.3	116.5	98.1	82.9
60°	780.7	679.4	559.7	360.5	233.6	184.4	150.5	120.8	94.1	74.6	60.7
62.5°	840.3	724.0	551.4	313.5	215.7	168.9	131.0	97.8	71.9	52.9	42.5
65°	884.1	742.5	509.4	288.4	204.5	153.7	110.1	75.9	49.7	36.4	32.3
67.5°	942.4	760.6	466.1	276.1	192.2	133.9	85.0	54.8	38.5	30.2	27.8
68°	938.4	755.6	457.0	272.9	188.4	126.9	80.2	53.7	37.4	29.4	27.0
70°	884.1	693.3	396.9	241.9	156.1	98.9	69.0	48.9	34.5	26.7	24.6
72.5°	725.4	537.8	284.7	159.3	101.6	72.4	51.1	36.9	28.6	23.5	21.9
75°	513.4	336.2	142.7	91.7	63.9	42.0	28.9	23.8	21.1	18.7	18.7
77.5°	288.7	175.9	75.4	62.8	36.1	24.3	19.2	17.9	16.6	15.2	16.8
80°	94.1	91.7	55.6	43.0	25.1	17.9	15.0	14.2	13.4	12.0	15.0
82.5°	50.8	62.8	40.1	30.7	18.5	12.8	11.2	11.5	10.4	9.4	11.2
85°	22.7	29.9	26.7	21.4	11.5	7.2	5.9	7.0	6.2	5.6	5.3
87.5°	8.8	14.7	10.7	6.2	2.7	1.6	1.6	1.3	1.1	1.1	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



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CATALOG NUMBER: ENT-FXX-LED-E1-GZW-BBB

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	292.6	292.6	292.6	292.6	292.6
2.5°	292.6	292.6	292.4	292.1	291.6
5°	296.4	296.4	296.1	295.9	295.3
7.5°	300.4	300.2	299.9	299.6	299.1
10°	304.7	304.1	304.1	304.4	304.1
12.5°	309.0	308.2	307.4	307.1	307.9
15°	313.2	311.7	310.3	310.0	310.0
17.5°	315.6	313.0	310.6	309.8	309.8
20°	315.1	310.3	307.1	305.5	305.8
22.5°	310.0	303.4	299.1	297.0	296.1
25°	299.4	291.3	286.0	283.0	283.3
27.5°	283.3	274.7	268.9	267.3	265.7
30°	264.3	255.8	249.9	246.4	246.7
32.5°	245.6	236.3	230.9	226.9	226.4
35°	227.7	217.6	211.2	208.2	207.7
37.5°	210.1	199.4	193.5	190.8	188.9
40°	193.8	184.2	177.2	173.2	172.4
42.5°	177.7	166.8	159.8	156.9	156.1
45°	159.6	149.1	143.0	140.6	140.1
47.5°	143.3	133.4	128.3	125.1	124.0
50°	127.5	118.1	112.2	109.3	108.8
52.5°	110.9	101.6	95.4	93.0	90.9
55°	92.8	82.9	76.7	72.4	70.8
57.5°	71.6	62.8	56.4	53.5	50.5
60°	51.3	43.6	38.5	36.1	33.9
62.5°	36.4	31.3	28.1	25.7	24.3
65°	29.9	27.5	24.1	21.9	20.9
67.5°	26.5	24.1	21.4	19.5	18.7
68°	25.9	23.5	20.9	19.0	18.5
70°	23.8	21.4	19.0	17.6	17.1
72.5°	21.1	19.2	17.1	15.8	15.2
75°	18.2	16.3	15.0	13.9	13.1
77.5°	16.0	13.4	12.8	11.8	11.2
80°	13.4	12.0	10.9	10.2	9.6
82.5°	10.9	9.1	7.7	7.0	6.7
85°	6.2	5.6	4.5	3.5	3.2
87.5°	0.6	0.3	0.3	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)