

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: P89348

Luminaire Tested: **ENT-BXX-LED-E1-BL4-BBB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P89348
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P21265)
Test Lab: INNOVATION CENTER P2
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-BXX-LED-E1-BL4-BBB
Description: ENTRI LED LUMINAIRE, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1369.8 lumens
Efficiency: N/A
Efficacy: 249.1 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B0 - U0 - 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



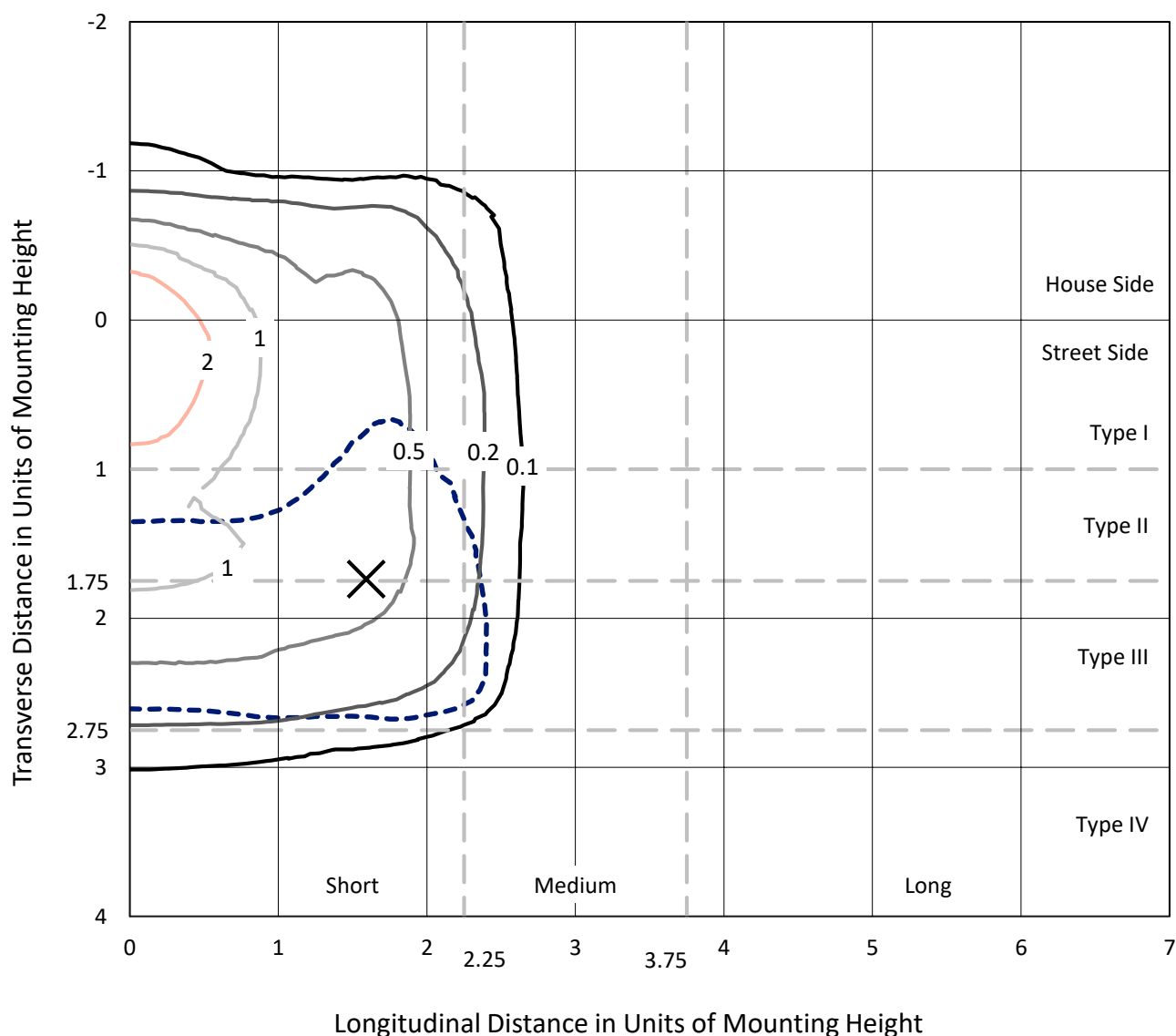
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

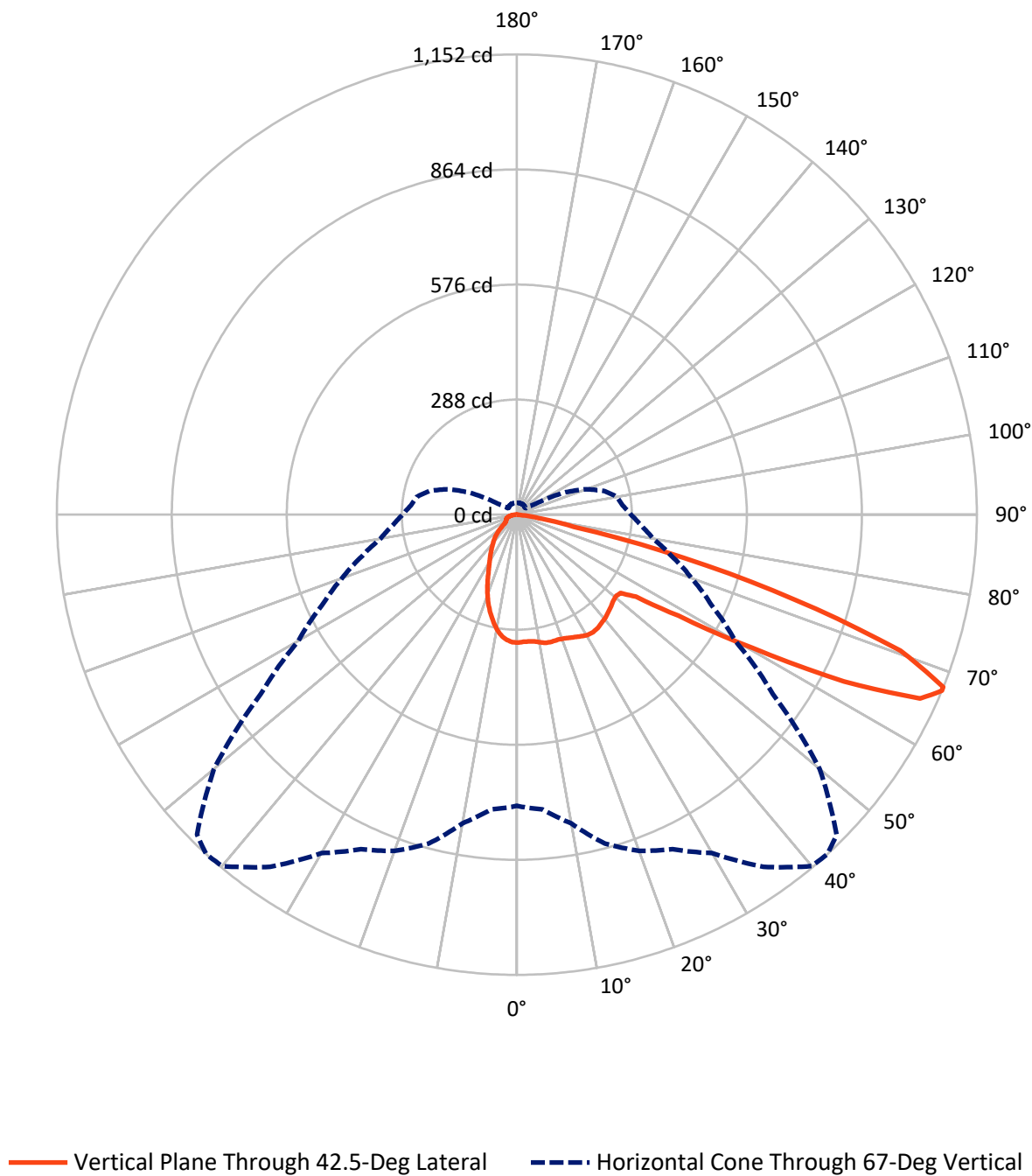


Based on 10 foot mounting height. Maximum calculated value = 3.2 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



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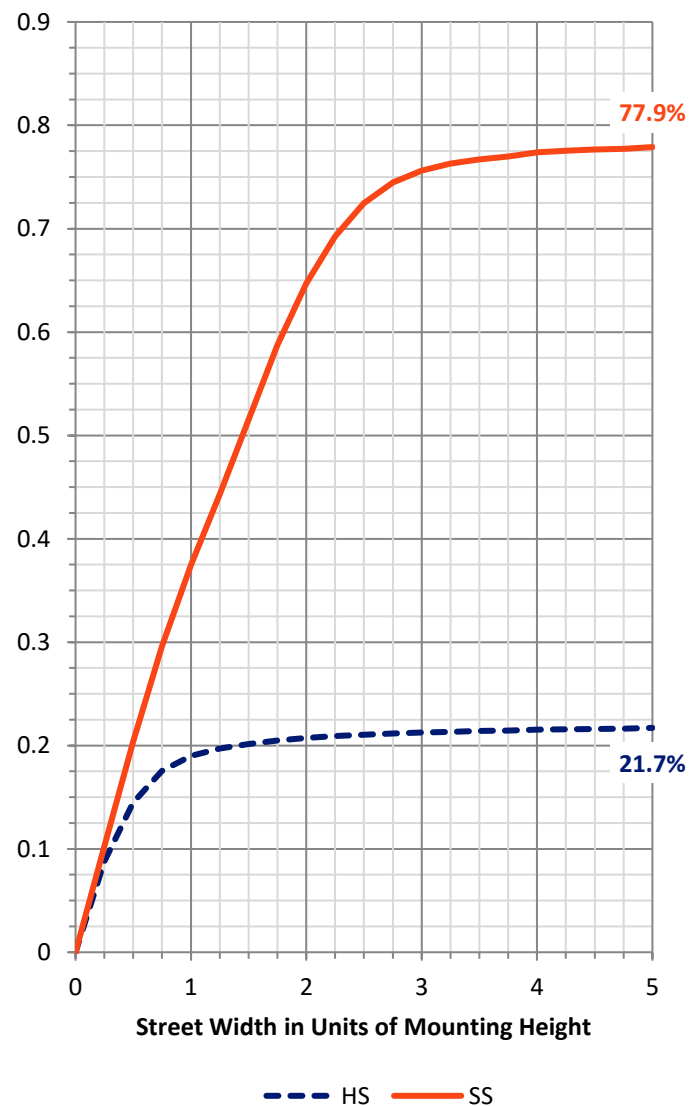
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	301.6	0.0	301.6
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	1068.3	0.0	1068.3
	% Fixture	78.0	0.0	78.0
Total	Lumens	1369.8	0.0	1369.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.0	2.2
10°-20°	83.7	6.1
20°-30°	122.9	9.0
30°-40°	151.4	11.1
40°-50°	167.0	12.2
50°-60°	258.8	18.9
60°-70°	414.3	30.2
70°-80°	130.9	9.6
80°-90°	10.7	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°	1369.8	100.0
0°-180°	1369.8	100.0

Coefficient of Utilization



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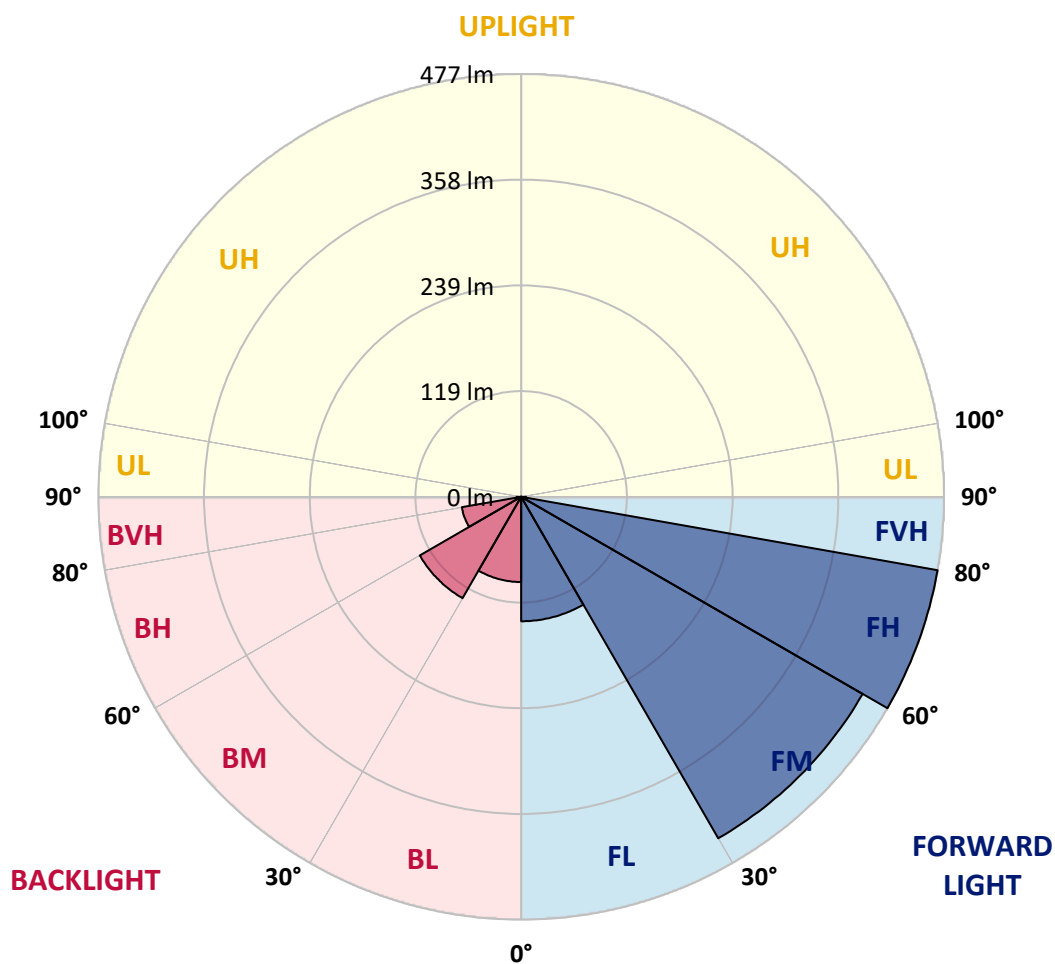
CATALOG NUMBER: ENT-BXX-LED-E1-BL4-BBB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	140.5	10.3			
FM	(30°-60°)	445.0	32.5			
FH	(60°-80°)	477.3	34.8			G0/660
FVH	(80°-90°)	5.5	0.4			G0/10
BL	(0°-30°)	96.2	7.0	B0/110		
BM	(30°-60°)	132.2	9.6	B0/220		
BH	(60°-80°)	68.0	5.0	B0/110		G0/110
BVH	(80°-90°)	5.2	0.4			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G0

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	320.2	320.2	320.2	320.2	320.2	320.2	320.2	320.2	320.2	320.2	320.2
2.5°	319.4	317.8	317.8	317.8	319.0	318.6	318.2	318.2	317.8	318.6	318.2
5°	321.4	319.8	319.0	319.4	319.8	319.0	319.0	317.8	318.6	318.6	317.8
7.5°	327.4	326.2	325.0	325.0	325.0	323.8	323.0	319.8	321.0	320.2	319.8
10°	334.5	334.9	332.5	332.5	332.1	330.5	329.3	325.7	325.0	325.0	324.2
12.5°	340.1	340.9	338.1	338.1	337.3	336.5	334.5	331.3	329.7	329.3	328.1
15°	346.5	347.3	343.7	343.7	341.3	340.1	336.9	332.9	330.9	329.7	328.9
17.5°	356.0	356.4	352.4	352.0	348.4	346.1	340.9	335.3	332.1	329.3	328.6
20°	366.0	366.8	363.2	362.4	359.2	355.2	349.2	341.3	335.3	330.9	329.3
22.5°	376.7	377.9	375.1	373.9	370.7	366.0	358.0	348.4	339.7	334.9	331.3
25°	387.9	388.7	386.7	384.3	380.3	375.1	366.4	355.2	344.5	339.3	334.1
27.5°	400.2	401.0	399.4	396.2	391.8	383.9	374.3	362.8	351.6	344.5	339.3
30°	411.8	412.1	412.1	407.8	403.8	394.2	381.9	368.4	356.0	349.2	344.1
32.5°	424.1	425.7	424.5	419.3	413.0	401.4	387.1	370.0	356.8	350.4	344.5
35°	436.0	436.5	435.7	429.7	420.5	406.2	388.3	370.0	354.8	348.9	342.1
37.5°	442.8	443.2	443.2	436.0	424.1	406.6	387.1	367.6	352.4	344.1	337.7
40°	442.0	442.8	443.6	438.1	424.1	405.8	383.5	362.4	348.4	340.5	332.9
42.5°	435.7	436.0	436.0	432.5	418.9	400.2	378.3	357.6	342.5	334.9	327.7
45°	428.5	428.5	428.1	424.9	412.1	393.4	371.9	353.2	336.9	329.7	322.2
47.5°	420.1	420.9	420.5	418.5	405.8	386.7	366.8	349.6	331.7	324.2	316.6
50°	418.9	420.1	420.9	418.9	405.8	386.3	366.0	349.6	330.1	321.0	313.0
52.5°	488.2	484.3	471.9	452.8	427.7	402.2	378.7	359.6	337.3	325.7	315.8
55°	675.8	673.0	656.7	619.2	559.1	491.0	434.5	398.6	374.3	362.4	352.0
57.5°	816.0	810.0	794.4	767.0	724.8	667.4	597.7	536.8	491.0	477.1	470.7
60°	869.7	868.9	868.9	865.4	843.4	810.4	772.2	732.4	694.1	677.4	665.8
62.5°	901.2	899.6	902.0	904.0	895.6	884.9	895.2	925.1	934.6	919.1	890.4
65°	905.6	904.0	907.1	914.7	916.3	924.3	960.1	1043.4	1114.2	1109.5	1072.8
67°	728.8	740.7	784.5	852.2	895.6	923.9	978.1	1076.0	1148.1	1151.7	1132.2
67.5°	755.0	768.2	812.0	868.5	902.4	927.5	980.4	1075.6	1148.5	1151.3	1133.8
70°	456.0	462.3	492.2	559.1	653.1	751.5	868.9	991.6	1043.0	1018.7	967.7
72.5°	250.1	251.3	258.5	278.8	313.0	370.7	487.8	651.5	739.1	727.6	694.9
75°	137.8	138.2	142.2	148.5	157.3	168.1	193.5	242.5	384.7	432.9	409.8
77.5°	70.9	72.5	77.2	83.2	92.4	98.4	104.3	116.3	128.6	146.1	145.8
80°	41.0	41.4	41.0	41.8	43.0	43.0	48.2	59.3	64.5	64.1	65.7
82.5°	8.4	8.8	11.1	12.8	14.7	15.9	15.9	17.9	21.9	24.3	25.1
85°	0.8	0.8	0.8	1.2	1.2	1.2	1.2	1.6	2.0	2.4	2.8
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	1.2	1.2	0.8	1.2	1.2
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	320.2	320.2	320.2	320.2	320.2	320.2	320.2	320.2	320.2	320.2	320.2
2.5°	318.6	319.4	318.6	319.4	319.8	320.6	320.2	320.2	321.0	322.2	321.8
5°	318.2	318.2	317.0	317.8	317.8	318.2	317.4	316.6	317.0	317.0	317.0
7.5°	319.4	318.2	317.0	317.0	316.2	315.8	314.6	313.0	311.8	311.4	309.8
10°	322.6	320.2	318.2	317.4	315.8	314.2	311.8	309.4	307.4	305.4	303.9
12.5°	326.5	323.4	319.8	319.0	316.2	312.6	309.0	305.0	301.8	299.1	295.9
15°	327.7	323.8	320.6	319.0	316.2	311.0	305.4	301.1	295.5	291.9	287.1
17.5°	326.5	322.2	319.0	317.4	314.2	308.2	302.3	296.3	289.1	283.1	277.2
20°	325.7	321.0	317.4	315.0	311.4	305.4	298.7	291.1	281.9	274.8	267.2
22.5°	326.5	321.0	316.6	314.2	310.2	303.0	295.1	285.5	274.8	265.6	256.5
25°	326.9	321.0	315.8	313.8	310.2	302.3	292.7	281.9	269.2	257.3	245.3
27.5°	328.9	322.2	316.6	313.4	309.8	302.7	291.9	279.1	265.2	251.3	238.1
30°	331.3	322.6	316.6	311.4	306.6	298.7	287.1	273.6	260.4	246.1	233.0
32.5°	332.5	322.2	313.4	306.6	299.5	291.5	279.6	266.4	253.3	239.7	225.4
35°	330.1	319.0	309.4	299.9	289.1	278.8	268.4	258.5	246.1	230.2	214.7
37.5°	325.0	313.8	303.0	289.9	276.4	265.2	256.9	248.9	235.8	219.8	203.9
40°	319.0	308.6	296.3	280.3	266.0	255.7	246.9	238.5	227.4	210.7	196.3
42.5°	313.0	301.1	285.9	271.2	257.6	247.3	237.7	229.8	220.2	205.1	191.5
45°	307.0	292.7	276.8	264.8	252.1	240.9	231.8	223.4	214.7	201.1	190.3
47.5°	301.1	284.3	269.6	260.8	251.7	240.9	231.0	222.6	213.5	202.7	194.7
50°	295.1	277.9	268.0	262.0	256.1	245.7	234.6	224.6	215.4	208.3	201.9
52.5°	295.5	282.4	278.8	277.9	277.6	272.0	264.0	253.3	242.5	235.3	223.4
55°	337.7	336.9	346.5	357.6	368.0	370.7	362.8	350.4	337.3	324.2	291.5
57.5°	464.3	468.3	477.9	481.9	478.7	468.3	450.0	430.5	415.7	397.8	354.0
60°	643.1	620.4	594.9	571.9	546.8	517.3	485.0	458.0	442.4	413.0	366.8
62.5°	811.6	735.1	668.6	618.5	575.8	530.5	482.7	452.4	434.5	394.6	346.5
65°	940.6	806.8	696.5	610.5	544.0	489.4	441.6	414.2	389.1	342.5	296.3
67°	989.6	782.5	631.6	538.8	465.9	401.4	346.5	312.2	285.5	266.0	254.5
67.5°	995.6	790.5	639.2	546.4	474.7	412.1	359.2	326.2	299.9	276.0	258.5
70°	827.1	650.7	499.0	387.1	294.3	227.0	175.2	143.8	118.7	108.7	131.4
72.5°	553.9	387.5	249.7	162.1	113.5	84.8	67.3	58.9	50.6	44.6	41.8
75°	248.1	135.0	86.4	67.7	55.8	47.8	40.6	35.0	31.0	27.9	25.1
77.5°	109.9	83.6	60.9	45.8	37.0	31.0	25.5	21.5	19.9	19.1	18.3
80°	64.5	50.2	31.9	25.9	22.3	19.9	17.9	15.1	13.9	13.9	13.9
82.5°	23.5	19.1	15.9	14.3	13.1	12.8	12.3	11.6	10.7	10.7	10.7
85°	3.6	4.8	5.2	6.4	6.8	7.6	7.6	7.6	7.6	7.6	9.2
87.5°	1.2	1.2	1.2	1.2	1.2	1.6	1.6	1.6	2.0	2.8	3.6
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°	320.2	320.2	320.2	320.2	320.2	320.2	320.2	320.2	320.2	320.2	320.2
2.5°	321.0	320.2	321.0	320.2	320.2	319.8	319.4	319.0	319.0	318.2	318.2
5°	316.2	315.8	316.2	315.0	315.4	315.4	314.6	314.6	314.2	313.4	313.4
7.5°	309.8	309.0	309.0	307.0	307.0	307.0	306.6	306.2	305.4	305.0	305.4
10°	302.7	301.5	299.9	297.5	295.9	295.1	293.5	293.1	292.3	292.3	293.5
12.5°	293.5	291.5	288.3	285.9	282.7	280.3	277.6	276.4	274.8	274.8	276.8
15°	282.7	279.1	274.8	270.8	267.2	263.6	260.0	257.6	255.3	255.3	256.1
17.5°	271.2	266.0	260.0	254.9	250.1	245.7	240.9	238.1	235.8	234.1	234.6
20°	259.2	251.7	243.7	236.2	230.2	225.0	219.8	217.1	215.0	213.8	213.5
22.5°	247.3	237.7	228.2	217.8	208.7	201.9	197.5	194.7	193.2	191.1	188.8
25°	233.8	223.0	211.4	199.1	188.4	180.0	176.0	172.8	169.7	166.4	162.5
27.5°	225.4	211.9	198.3	183.6	172.0	163.3	156.9	152.1	148.2	144.6	141.4
30°	219.0	204.7	189.6	173.2	160.5	149.7	142.2	136.2	131.0	127.0	123.1
32.5°	210.7	195.9	180.4	165.2	150.9	138.6	129.4	122.6	115.9	110.3	105.5
35°	199.9	187.2	174.0	158.1	142.6	129.0	118.3	110.3	102.3	95.2	89.6
37.5°	191.5	181.2	168.5	151.3	134.2	120.3	108.7	98.4	89.2	80.8	74.5
40°	186.8	177.2	163.7	144.9	126.6	111.5	99.6	88.4	78.1	68.5	61.7
42.5°	184.0	175.2	159.7	139.4	120.3	103.9	91.2	78.8	66.9	56.6	50.2
45°	184.0	176.0	157.7	135.4	114.7	97.2	82.8	68.5	55.4	46.2	42.2
47.5°	188.4	176.0	155.3	132.6	111.1	91.6	74.1	57.3	45.0	39.8	38.2
50°	193.9	176.4	154.1	129.8	106.7	85.2	63.3	45.4	38.2	36.2	36.6
52.5°	203.9	180.0	153.7	126.6	101.1	76.1	51.0	37.8	35.0	35.0	35.8
55°	236.2	190.3	154.5	122.3	92.4	62.1	39.4	33.9	33.4	34.3	35.0
57.5°	290.7	223.4	160.1	114.7	77.6	46.6	33.9	32.7	33.1	33.9	34.3
60°	312.6	250.1	175.2	105.5	58.9	35.0	31.0	31.9	32.2	33.1	33.4
62.5°	299.9	249.3	178.8	95.2	42.2	29.9	29.9	31.0	32.2	32.2	32.2
65°	259.7	220.2	160.9	77.6	31.9	27.9	29.1	30.3	31.0	31.5	31.5
67°	227.0	185.2	129.4	53.4	28.7	26.3	27.9	29.1	29.1	29.5	29.9
67.5°	228.2	187.2	131.0	54.6	28.7	26.7	27.9	29.1	29.5	29.9	30.3
70°	183.6	171.2	115.9	46.6	28.7	25.5	26.7	27.5	27.9	27.9	28.7
72.5°	56.6	119.9	110.3	44.6	28.3	23.9	25.1	25.9	25.9	25.9	26.3
75°	25.5	35.0	72.5	42.2	26.7	22.3	22.7	23.1	23.9	23.5	23.5
77.5°	18.3	24.3	38.6	36.6	23.5	19.9	19.9	20.7	20.3	20.3	20.7
80°	13.9	16.7	23.9	25.1	18.3	16.3	16.7	17.1	17.1	17.1	17.1
82.5°	10.7	11.6	15.1	16.3	13.9	12.8	12.3	13.5	13.9	13.9	13.9
85°	8.4	8.4	8.8	11.6	11.9	10.4	9.6	10.4	10.4	10.7	11.1
87.5°	5.6	6.0	6.4	6.8	7.2	6.4	5.6	6.0	6.4	6.4	6.4
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-BXX-LED-E1-BL4-BBB

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	320.2	320.2	320.2	320.2	320.2
2.5°	319.8	319.8	318.6	319.8	319.4
5°	315.0	314.6	314.2	315.0	314.6
7.5°	305.4	305.4	306.2	306.2	305.4
10°	293.9	293.9	295.1	295.5	295.1
12.5°	277.6	277.6	278.8	279.1	277.9
15°	258.0	257.6	258.5	258.5	258.5
17.5°	236.9	237.7	238.9	238.5	238.9
20°	214.2	214.7	215.0	214.2	215.0
22.5°	187.6	186.4	185.6	184.4	184.8
25°	159.7	158.1	156.9	156.5	156.5
27.5°	138.2	136.6	135.8	135.0	135.4
30°	119.9	117.9	116.3	115.9	115.9
32.5°	102.0	99.2	97.6	96.8	96.4
35°	85.6	82.4	79.6	78.4	77.6
37.5°	70.1	66.1	63.3	61.7	61.3
40°	56.6	52.6	49.8	49.0	48.6
42.5°	46.2	43.4	41.8	41.4	41.0
45°	40.2	39.0	38.6	38.6	38.6
47.5°	37.8	37.4	37.4	37.8	37.8
50°	36.6	36.6	36.6	37.0	37.0
52.5°	36.2	36.6	36.2	36.2	36.2
55°	35.0	35.5	35.5	35.0	35.5
57.5°	34.6	35.0	34.6	34.6	34.6
60°	33.9	33.9	33.9	33.4	33.9
62.5°	33.1	33.4	33.1	33.4	33.4
65°	31.9	31.9	31.9	32.2	31.9
67°	29.9	29.5	29.9	29.5	29.5
67.5°	30.3	29.9	29.9	29.9	30.3
70°	28.3	27.9	28.3	28.7	28.7
72.5°	25.9	25.9	26.7	27.5	27.9
75°	23.5	24.3	25.1	26.3	26.7
77.5°	20.7	21.5	22.3	23.1	23.9
80°	17.1	17.5	17.9	18.7	19.1
82.5°	13.9	13.9	14.3	14.3	14.7
85°	11.1	11.6	11.6	11.6	11.6
87.5°	6.0	6.4	6.8	6.4	6.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)