

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: P89372

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P89372
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-CXX-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: 1113.7 lumens
Efficiency: N/A
Efficacy: 202.5 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



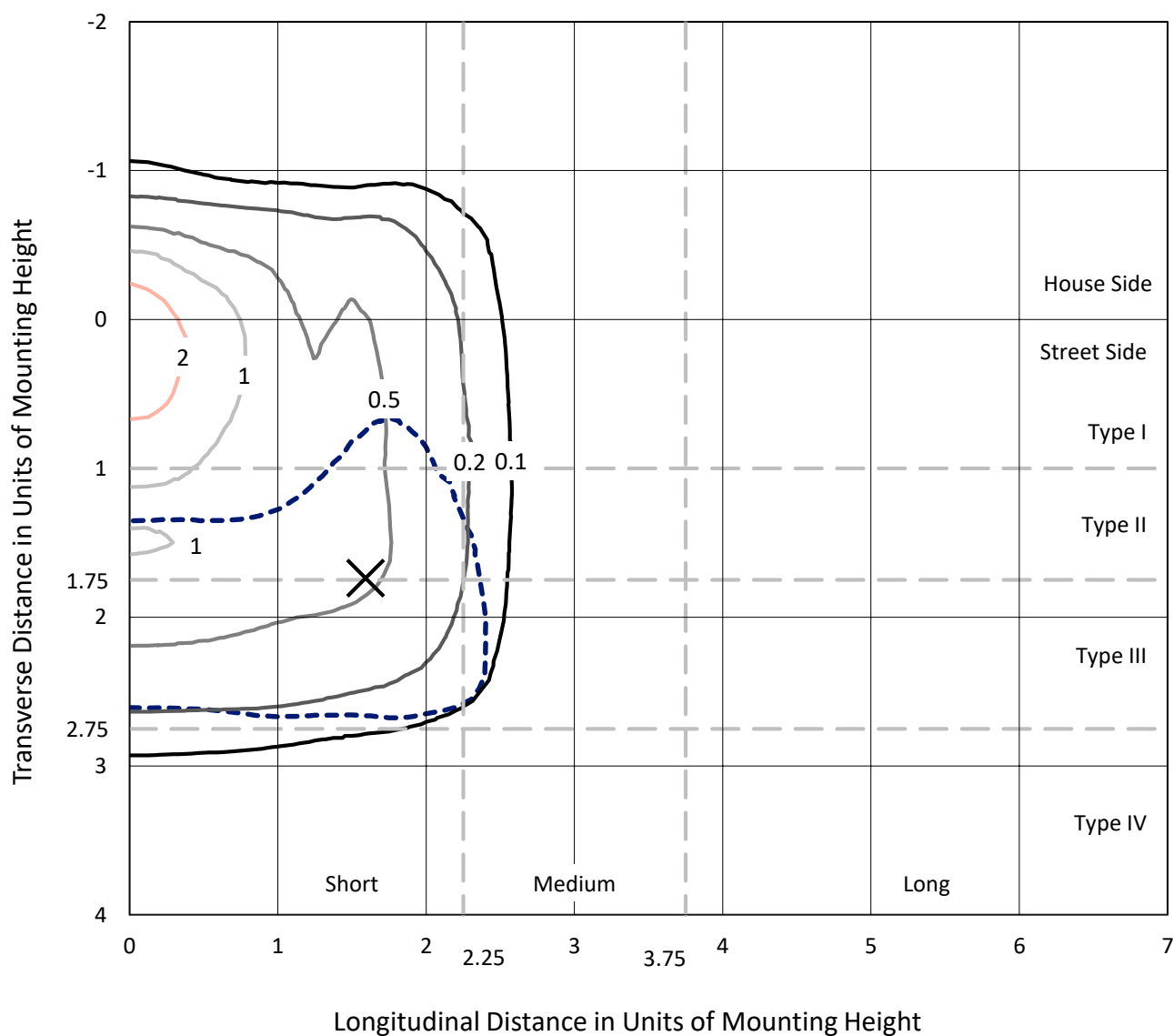
REPORT NUMBER: P89372

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

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

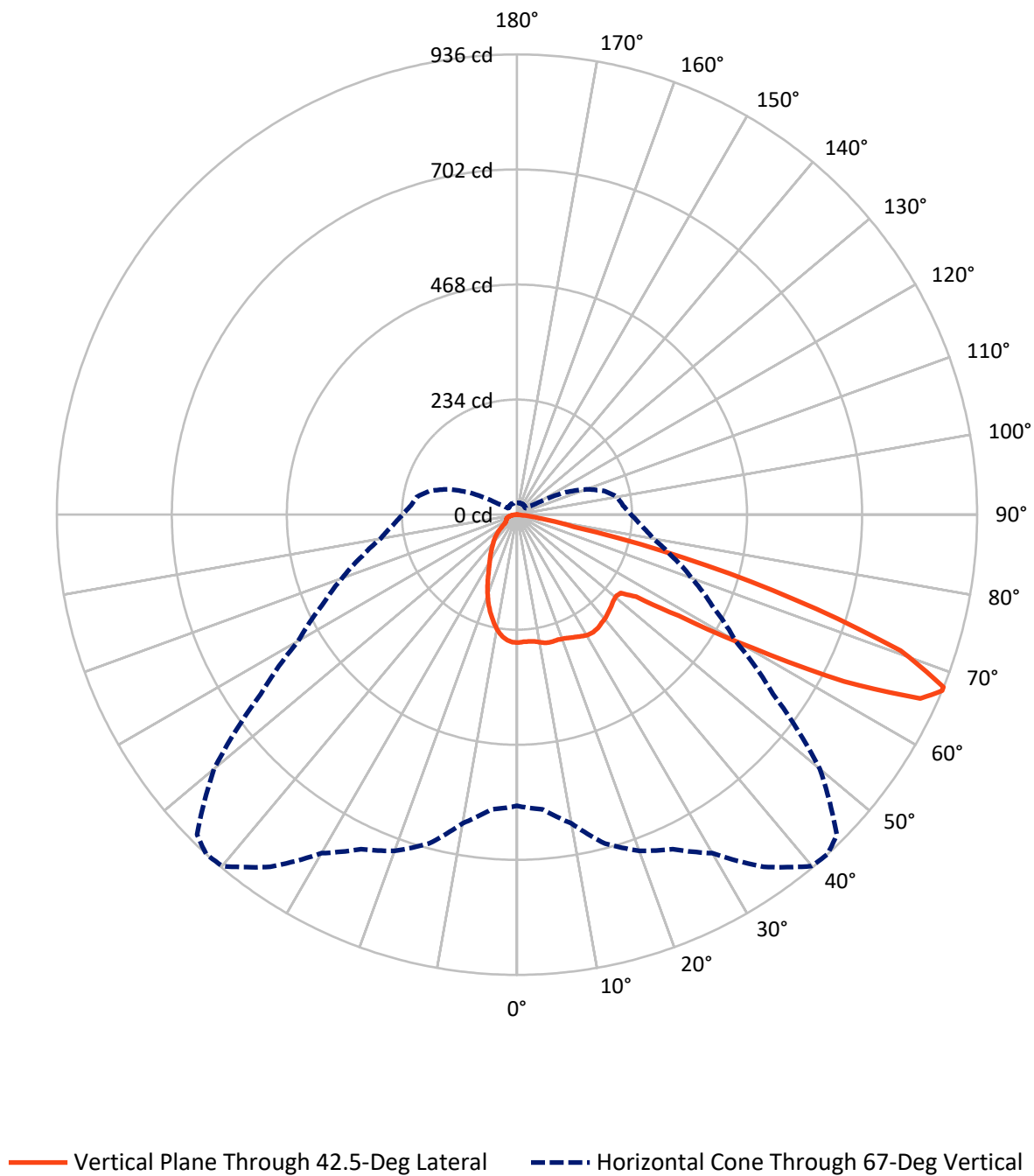


Based on 10 foot mounting height. Maximum calculated value = 2.6 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P89372

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

Luminous Intensity Polar Plot



REPORT NUMBER: P89372

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

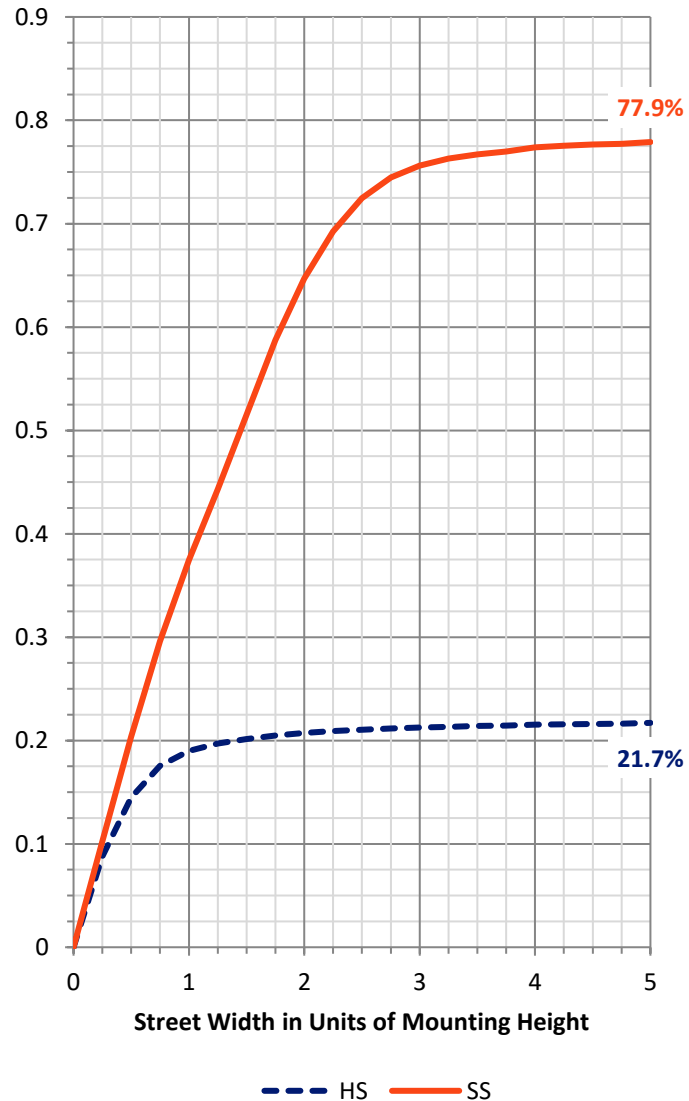
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	245.2	0.0	245.2
	% Fixture	22.0	0.0	22.0
Street Side	Lumens	868.5	0.0	868.5
	% Fixture	78.0	0.0	78.0
Total	Lumens	1113.7	0.0	1113.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.4	2.2
10°-20°	68.1	6.1
20°-30°	99.9	9.0
30°-40°	123.1	11.1
40°-50°	135.8	12.2
50°-60°	210.4	18.9
60°-70°	336.8	30.2
70°-80°	106.5	9.6
80°-90°	8.7	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°	1113.7	100.0
0°-180°	1113.7	100.0

Coefficient of Utilization



REPORT NUMBER: P89372

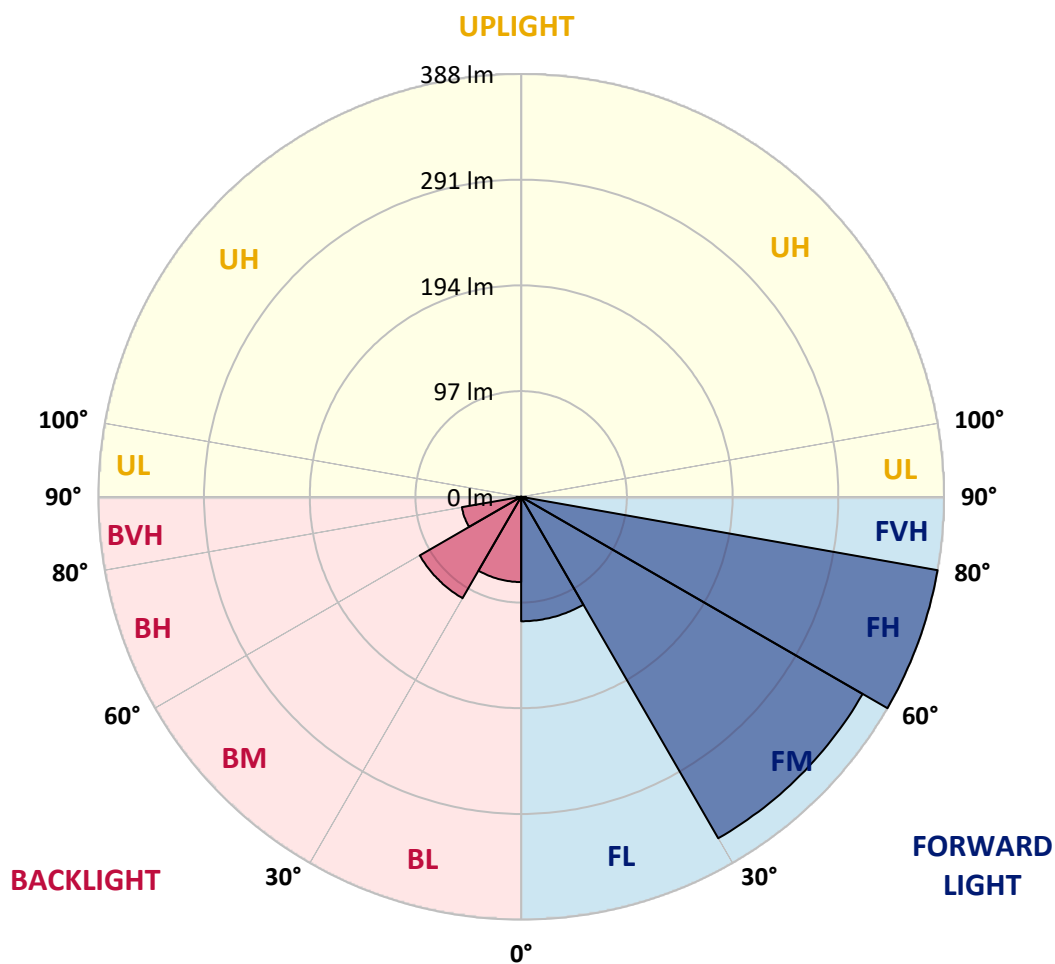
CATALOG NUMBER: ENT-CXX-LED-E1-BL4-BBB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	114.2	10.3			
FM	(30°-60°)	361.8	32.5			
FH	(60°-80°)	388.0	34.8			G0/660
FVH	(80°-90°)	4.4	0.4			G0/10
BL	(0°-30°)	78.2	7.0	B0/110		
BM	(30°-60°)	107.5	9.6	B0/220		
BH	(60°-80°)	55.3	5.0	B0/110		G0/110
BVH	(80°-90°)	4.2	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



REPORT NUMBER: P89372

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3
2.5°	259.7	258.4	258.4	258.4	259.3	259.0	258.7	258.7	258.4	259.0	258.7
5°	261.3	260.0	259.3	259.7	260.0	259.3	259.3	258.4	259.0	259.0	258.4
7.5°	266.1	265.2	264.2	264.2	264.2	263.2	262.6	260.0	261.0	260.3	260.0
10°	272.0	272.3	270.3	270.3	270.0	268.7	267.8	264.8	264.2	264.2	263.5
12.5°	276.5	277.1	274.9	274.9	274.2	273.6	272.0	269.4	268.1	267.8	266.8
15°	281.7	282.3	279.4	279.4	277.5	276.5	273.9	270.7	269.0	268.1	267.4
17.5°	289.4	289.8	286.5	286.2	283.3	281.3	277.1	272.6	270.0	267.8	267.1
20°	297.5	298.2	295.3	294.6	292.0	288.8	283.9	277.5	272.6	269.0	267.8
22.5°	306.3	307.3	305.0	304.0	301.4	297.5	291.1	283.3	276.2	272.3	269.4
25°	315.3	316.0	314.4	312.4	309.2	305.0	297.9	288.8	280.1	275.8	271.6
27.5°	325.4	326.0	324.7	322.1	318.6	312.1	304.3	294.9	285.9	280.1	275.8
30°	334.8	335.1	335.1	331.5	328.3	320.5	310.5	299.5	289.4	283.9	279.7
32.5°	344.8	346.1	345.1	340.9	335.7	326.4	314.7	300.8	290.1	284.9	280.1
35°	354.5	354.8	354.2	349.3	341.9	330.2	315.7	300.8	288.5	283.6	278.1
37.5°	360.0	360.3	360.3	354.5	344.8	330.6	314.7	298.8	286.5	279.7	274.6
40°	359.4	360.0	360.7	356.1	344.8	329.9	311.8	294.6	283.3	276.8	270.7
42.5°	354.2	354.5	354.5	351.6	340.6	325.4	307.6	290.7	278.4	272.3	266.5
45°	348.4	348.4	348.0	345.5	335.1	319.9	302.4	287.2	273.9	268.1	261.9
47.5°	341.6	342.2	341.9	340.3	329.9	314.4	298.2	284.3	269.7	263.5	257.4
50°	340.6	341.6	342.2	340.6	329.9	314.0	297.5	284.3	268.4	261.0	254.5
52.5°	396.9	393.7	383.7	368.1	347.7	327.0	307.9	292.4	274.2	264.8	256.7
55°	549.4	547.2	533.9	503.5	454.6	399.2	353.2	324.1	304.3	294.6	286.2
57.5°	663.4	658.5	645.9	623.6	589.2	542.6	486.0	436.4	399.2	387.9	382.7
60°	707.1	706.4	706.4	703.5	685.7	658.9	627.8	595.4	564.3	550.7	541.3
62.5°	732.7	731.4	733.3	734.9	728.1	719.4	727.8	752.1	759.9	747.2	723.9
65°	736.2	734.9	737.5	743.7	745.0	751.5	780.6	848.3	905.9	902.0	872.2
67°	592.5	602.2	637.8	692.9	728.1	751.1	795.2	874.8	933.4	936.3	920.5
67.5°	613.9	624.5	660.2	706.1	733.6	754.0	797.1	874.5	933.7	936.0	921.8
70°	370.7	375.9	400.2	454.6	531.0	610.9	706.4	806.2	847.9	828.2	786.7
72.5°	203.3	204.3	210.1	226.6	254.5	301.4	396.6	529.7	600.9	591.5	565.0
75°	112.0	112.3	115.6	120.8	127.9	136.6	157.3	197.2	312.8	351.9	333.2
77.5°	57.6	58.9	62.8	67.7	75.1	80.0	84.8	94.5	104.6	118.8	118.5
80°	33.3	33.7	33.3	34.0	35.0	35.0	39.2	48.2	52.4	52.1	53.4
82.5°	6.8	7.1	9.1	10.4	12.0	13.0	13.0	14.6	17.8	19.7	20.4
85°	0.6	0.6	0.6	1.0	1.0	1.0	1.0	1.3	1.6	1.9	2.3
87.5°	0.6	0.6	0.6	0.6	0.6	0.6	1.0	1.0	0.6	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

REPORT NUMBER: P89372

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

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3
2.5°	259.0	259.7	259.0	259.7	260.0	260.6	260.3	260.3	261.0	261.9	261.6
5°	258.7	258.7	257.7	258.4	258.4	258.7	258.0	257.4	257.7	257.7	257.7
7.5°	259.7	258.7	257.7	257.7	257.1	256.7	255.8	254.5	253.5	253.2	251.9
10°	262.2	260.3	258.7	258.0	256.7	255.4	253.5	251.6	249.9	248.3	247.0
12.5°	265.5	262.9	260.0	259.3	257.1	254.2	251.2	248.0	245.4	243.1	240.6
15°	266.5	263.2	260.6	259.3	257.1	252.9	248.3	244.8	240.2	237.3	233.4
17.5°	265.5	261.9	259.3	258.0	255.4	250.6	245.7	240.9	235.1	230.2	225.3
20°	264.8	261.0	258.0	256.1	253.2	248.3	242.8	236.7	229.2	223.4	217.2
22.5°	265.5	261.0	257.4	255.4	252.2	246.4	239.9	232.1	223.4	215.9	208.5
25°	265.8	261.0	256.7	255.1	252.2	245.7	238.0	229.2	218.9	209.2	199.4
27.5°	267.4	261.9	257.4	254.8	251.9	246.1	237.3	227.0	215.6	204.3	193.6
30°	269.4	262.2	257.4	253.2	249.3	242.8	233.4	222.4	211.7	200.1	189.4
32.5°	270.3	261.9	254.8	249.3	243.5	237.0	227.3	216.6	205.9	194.9	183.2
35°	268.4	259.3	251.6	243.8	235.1	226.6	218.2	210.1	200.1	187.1	174.5
37.5°	264.2	255.1	246.4	235.7	224.7	215.6	208.8	202.4	191.7	178.7	165.8
40°	259.3	250.9	240.9	227.9	216.3	207.9	200.7	193.9	184.9	171.3	159.6
42.5°	254.5	244.8	232.5	220.5	209.5	201.1	193.3	186.8	179.0	166.7	155.7
45°	249.6	238.0	225.0	215.3	204.9	195.9	188.4	181.6	174.5	163.5	154.8
47.5°	244.8	231.2	219.2	212.1	204.6	195.9	187.8	181.0	173.5	164.8	158.3
50°	239.9	226.0	217.9	213.0	208.2	199.8	190.7	182.6	175.2	169.3	164.1
52.5°	240.2	229.5	226.6	226.0	225.7	221.1	214.7	205.9	197.2	191.3	181.6
55°	274.6	273.9	281.7	290.7	299.2	301.4	294.9	284.9	274.2	263.5	237.0
57.5°	377.5	380.7	388.5	391.8	389.2	380.7	365.9	350.0	338.0	323.4	287.8
60°	522.9	504.4	483.7	464.9	444.5	420.6	394.3	372.3	359.7	335.7	298.2
62.5°	659.8	597.7	543.6	502.8	468.2	431.3	392.4	367.8	353.2	320.8	281.7
65°	764.7	655.9	566.3	496.3	442.3	397.9	359.1	336.7	316.3	278.4	240.9
67°	804.5	636.2	513.5	438.1	378.8	326.4	281.7	253.8	232.1	216.3	206.9
67.5°	809.4	642.7	519.6	444.2	385.9	335.1	292.0	265.2	243.8	224.4	210.1
70°	672.5	529.0	405.7	314.7	239.3	184.5	142.5	116.9	96.5	88.4	106.8
72.5°	450.4	315.0	203.0	131.8	92.3	69.0	54.7	47.9	41.1	36.3	34.0
75°	201.7	109.8	70.3	55.0	45.3	38.9	33.0	28.5	25.3	22.7	20.4
77.5°	89.4	68.0	49.5	37.2	30.1	25.3	20.7	17.5	16.2	15.5	14.9
80°	52.4	40.8	25.9	21.0	18.1	16.2	14.6	12.3	11.3	11.3	11.3
82.5°	19.1	15.5	13.0	11.7	10.7	10.4	10.0	9.4	8.7	8.7	8.7
85°	2.9	3.9	4.2	5.2	5.5	6.2	6.2	6.2	6.2	6.2	7.4
87.5°	1.0	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.6	2.3	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P89372

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

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3	260.3
2.5°	261.0	260.3	261.0	260.3	260.3	260.0	259.7	259.3	259.3	258.7	258.7
5°	257.1	256.7	257.1	256.1	256.4	256.4	255.8	255.8	255.4	254.8	254.8
7.5°	251.9	251.2	251.2	249.6	249.6	249.6	249.3	249.0	248.3	248.0	248.3
10°	246.1	245.1	243.8	241.9	240.6	239.9	238.6	238.3	237.6	237.6	238.6
12.5°	238.6	237.0	234.4	232.5	229.9	227.9	225.7	224.7	223.4	223.4	225.0
15°	229.9	227.0	223.4	220.2	217.2	214.3	211.4	209.5	207.5	207.5	208.2
17.5°	220.5	216.3	211.4	207.2	203.3	199.8	195.9	193.6	191.7	190.4	190.7
20°	210.8	204.6	198.1	192.0	187.1	182.9	178.7	176.5	174.8	173.9	173.5
22.5°	201.1	193.3	185.5	177.1	169.7	164.1	160.6	158.3	157.0	155.4	153.5
25°	190.0	181.3	171.9	161.9	153.1	146.3	143.1	140.5	137.9	135.3	132.1
27.5°	183.2	172.2	161.2	149.3	139.9	132.7	127.6	123.7	120.4	117.5	114.9
30°	178.1	166.4	154.1	140.8	130.5	121.7	115.6	110.7	106.5	103.3	100.0
32.5°	171.3	159.3	146.7	134.4	122.7	112.7	105.2	99.7	94.2	89.7	85.8
35°	162.5	152.2	141.5	128.5	115.9	104.9	96.2	89.7	83.2	77.4	72.8
37.5°	155.7	147.3	137.0	123.0	109.1	97.8	88.4	80.0	72.5	65.7	60.5
40°	151.8	144.1	133.1	117.8	103.0	90.7	80.9	71.9	63.5	55.7	50.2
42.5°	149.6	142.5	129.8	113.3	97.8	84.5	74.1	64.1	54.4	46.0	40.8
45°	149.6	143.1	128.2	110.1	93.2	79.0	67.3	55.7	45.0	37.6	34.3
47.5°	153.1	143.1	126.3	107.8	90.3	74.5	60.2	46.6	36.6	32.4	31.1
50°	157.7	143.4	125.3	105.5	86.8	69.3	51.5	36.9	31.1	29.5	29.8
52.5°	165.8	146.3	125.0	103.0	82.2	61.8	41.4	30.8	28.5	28.5	29.1
55°	192.0	154.8	125.6	99.4	75.1	50.5	32.1	27.5	27.2	27.8	28.5
57.5°	236.3	181.6	130.2	93.2	63.1	37.9	27.5	26.5	26.9	27.5	27.8
60°	254.2	203.3	142.5	85.8	47.9	28.5	25.3	25.9	26.2	26.9	27.2
62.5°	243.8	202.7	145.4	77.4	34.3	24.3	24.3	25.3	26.2	26.2	26.2
65°	211.1	179.0	130.8	63.1	25.9	22.7	23.6	24.6	25.3	25.6	25.6
67°	184.5	150.5	105.2	43.4	23.3	21.4	22.7	23.6	23.6	24.0	24.3
67.5°	185.5	152.2	106.5	44.4	23.3	21.7	22.7	23.6	24.0	24.3	24.6
70°	149.3	139.2	94.2	37.9	23.3	20.7	21.7	22.3	22.7	22.7	23.3
72.5°	46.0	97.5	89.7	36.3	23.0	19.4	20.4	21.0	21.0	21.0	21.4
75°	20.7	28.5	58.9	34.3	21.7	18.1	18.5	18.8	19.4	19.1	19.1
77.5°	14.9	19.7	31.4	29.8	19.1	16.2	16.2	16.8	16.5	16.5	16.8
80°	11.3	13.6	19.4	20.4	14.9	13.3	13.6	13.9	13.9	13.9	13.9
82.5°	8.7	9.4	12.3	13.3	11.3	10.4	10.0	11.0	11.3	11.3	11.3
85°	6.8	6.8	7.1	9.4	9.7	8.4	7.8	8.4	8.4	8.7	9.1
87.5°	4.5	4.9	5.2	5.5	5.8	5.2	4.5	4.9	5.2	5.2	5.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P89372

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

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	260.3	260.3	260.3	260.3	260.3
2.5°	260.0	260.0	259.0	260.0	259.7
5°	256.1	255.8	255.4	256.1	255.8
7.5°	248.3	248.3	249.0	249.0	248.3
10°	238.9	238.9	239.9	240.2	239.9
12.5°	225.7	225.7	226.6	227.0	226.0
15°	209.8	209.5	210.1	210.1	210.1
17.5°	192.6	193.3	194.3	193.9	194.3
20°	174.2	174.5	174.8	174.2	174.8
22.5°	152.5	151.5	150.9	149.9	150.2
25°	129.8	128.5	127.6	127.2	127.2
27.5°	112.3	111.1	110.4	109.8	110.1
30°	97.5	95.8	94.5	94.2	94.2
32.5°	82.9	80.6	79.3	78.7	78.4
35°	69.6	67.0	64.8	63.8	63.1
37.5°	57.0	53.7	51.5	50.2	49.9
40°	46.0	42.7	40.5	39.8	39.5
42.5°	37.6	35.3	34.0	33.7	33.3
45°	32.7	31.7	31.4	31.4	31.4
47.5°	30.8	30.4	30.4	30.8	30.8
50°	29.8	29.8	29.8	30.1	30.1
52.5°	29.5	29.8	29.5	29.5	29.5
55°	28.5	28.8	28.8	28.5	28.8
57.5°	28.2	28.5	28.2	28.2	28.2
60°	27.5	27.5	27.5	27.2	27.5
62.5°	26.9	27.2	26.9	27.2	27.2
65°	25.9	25.9	25.9	26.2	25.9
67°	24.3	24.0	24.3	24.0	24.0
67.5°	24.6	24.3	24.3	24.3	24.6
70°	23.0	22.7	23.0	23.3	23.3
72.5°	21.0	21.0	21.7	22.3	22.7
75°	19.1	19.7	20.4	21.4	21.7
77.5°	16.8	17.5	18.1	18.8	19.4
80°	13.9	14.2	14.6	15.2	15.5
82.5°	11.3	11.3	11.7	11.7	12.0
85°	9.1	9.4	9.4	9.4	9.4
87.5°	4.9	5.2	5.5	5.2	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)