

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: P173495

Luminaire Tested: **ENT-EXX-LED-E1-BL4-7030-CWB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P173495
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33646)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-EXX-LED-E1-BL4-7030-CWB
Description: ENTRI LED LUMINAIRE, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1545.1 lumens
Efficiency: N/A
Efficacy: 280.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B0 - U0 - G0

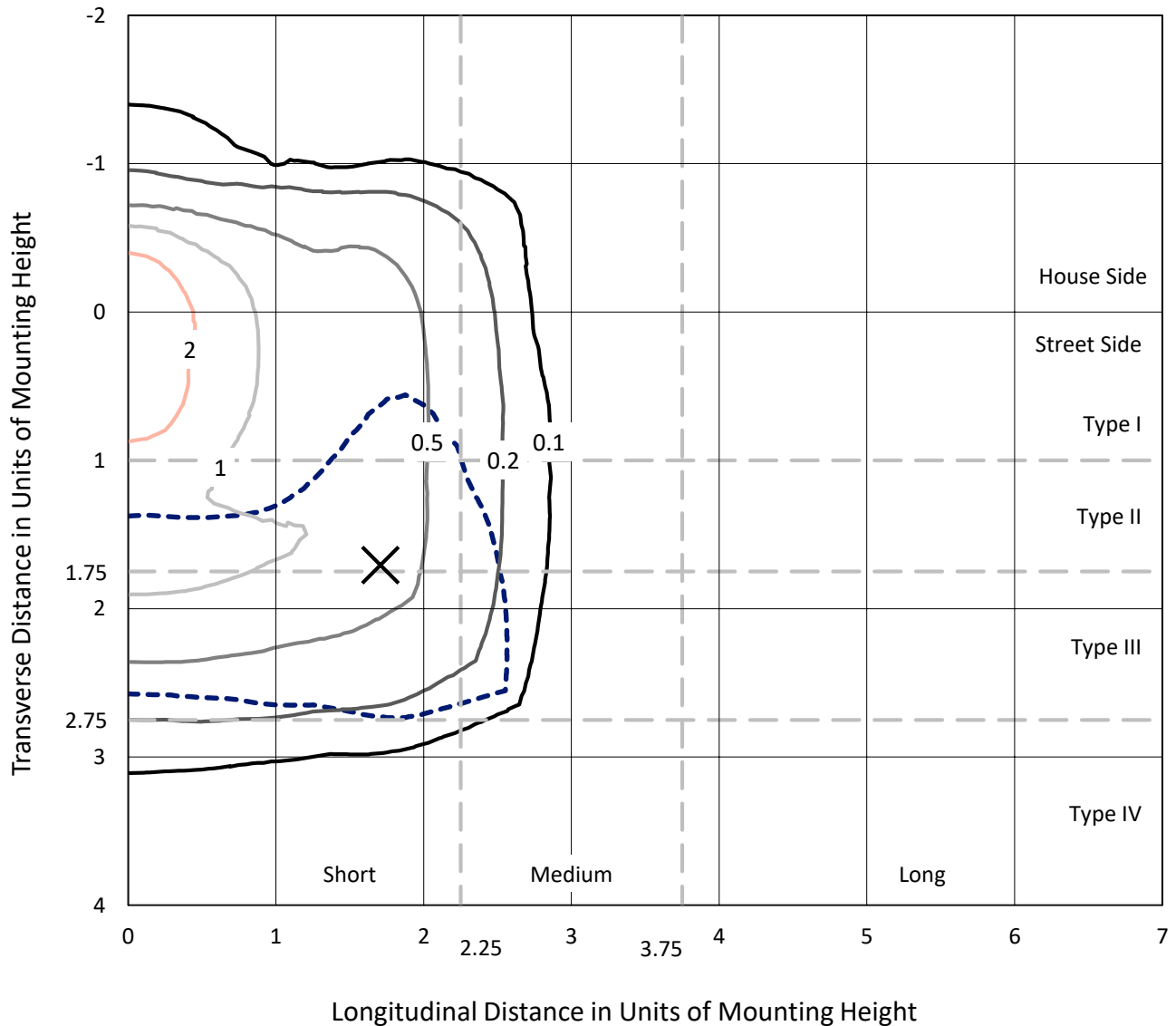
Input Watts (W): 5.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P173495
 CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7030-CWB

Iso-Footcandle Lines of Horizontal Illumination

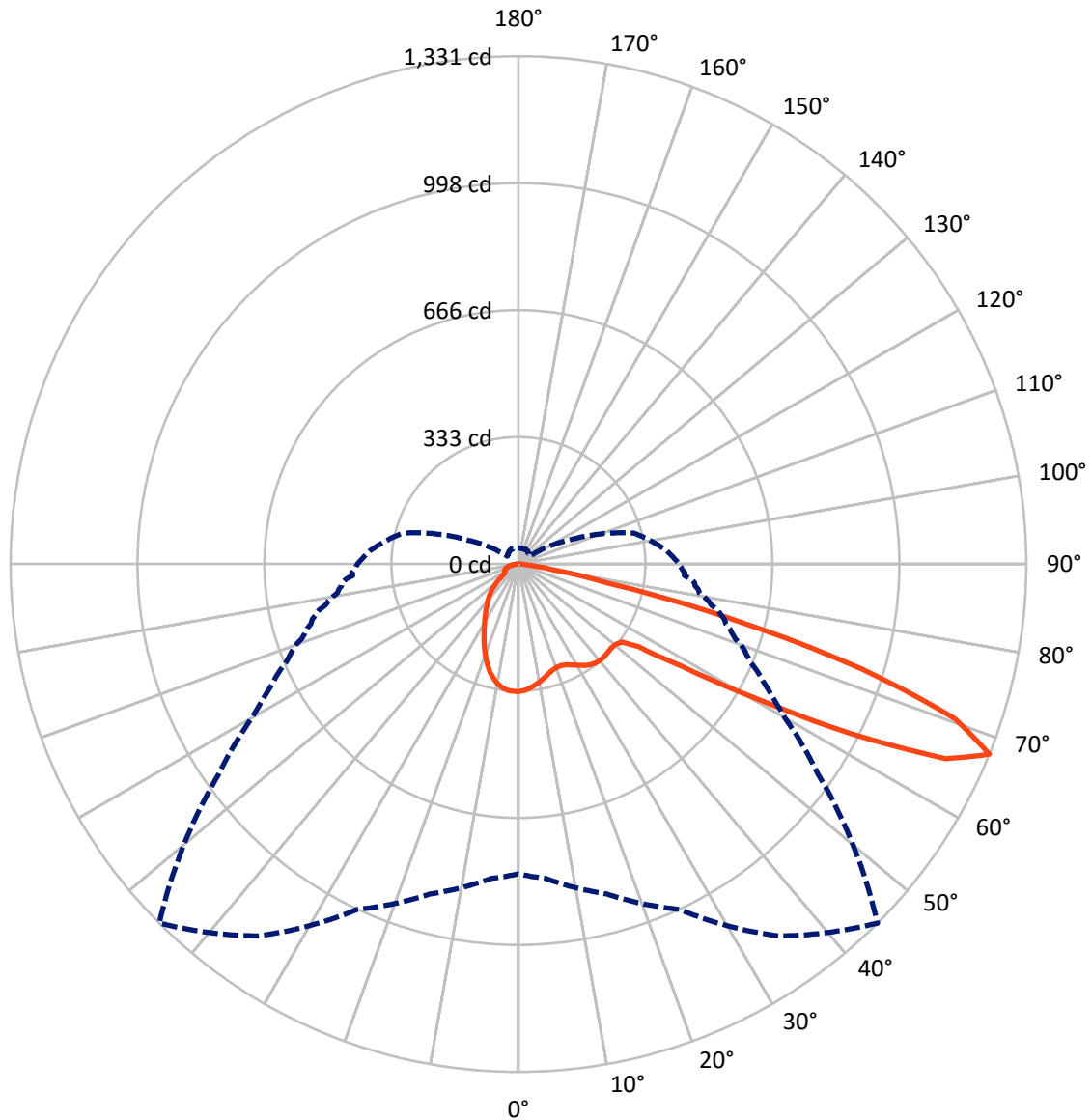
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.3 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P173495
CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7030-CWB

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P173495

CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7030-CWB

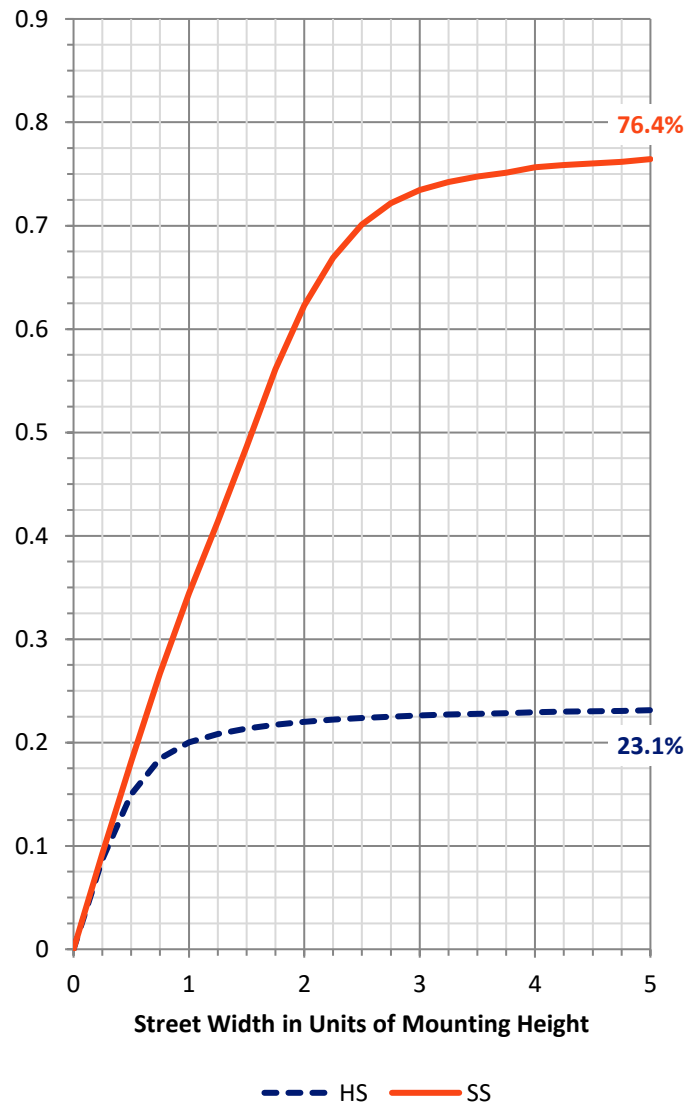
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	362.1	0.0	362.1
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	1183.0	0.0	1183.0
	% Fixture	76.6	0.0	76.6
Total	Lumens	1545.1	0.0	1545.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.0	2.0
10°-20°	83.5	5.4
20°-30°	120.3	7.8
30°-40°	153.5	9.9
40°-50°	181.2	11.7
50°-60°	290.6	18.8
60°-70°	489.1	31.7
70°-80°	181.9	11.8
80°-90°	13.8	0.9
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°	1545.1	100.0
0°-180°	1545.1	100.0



REPORT NUMBER: P173495

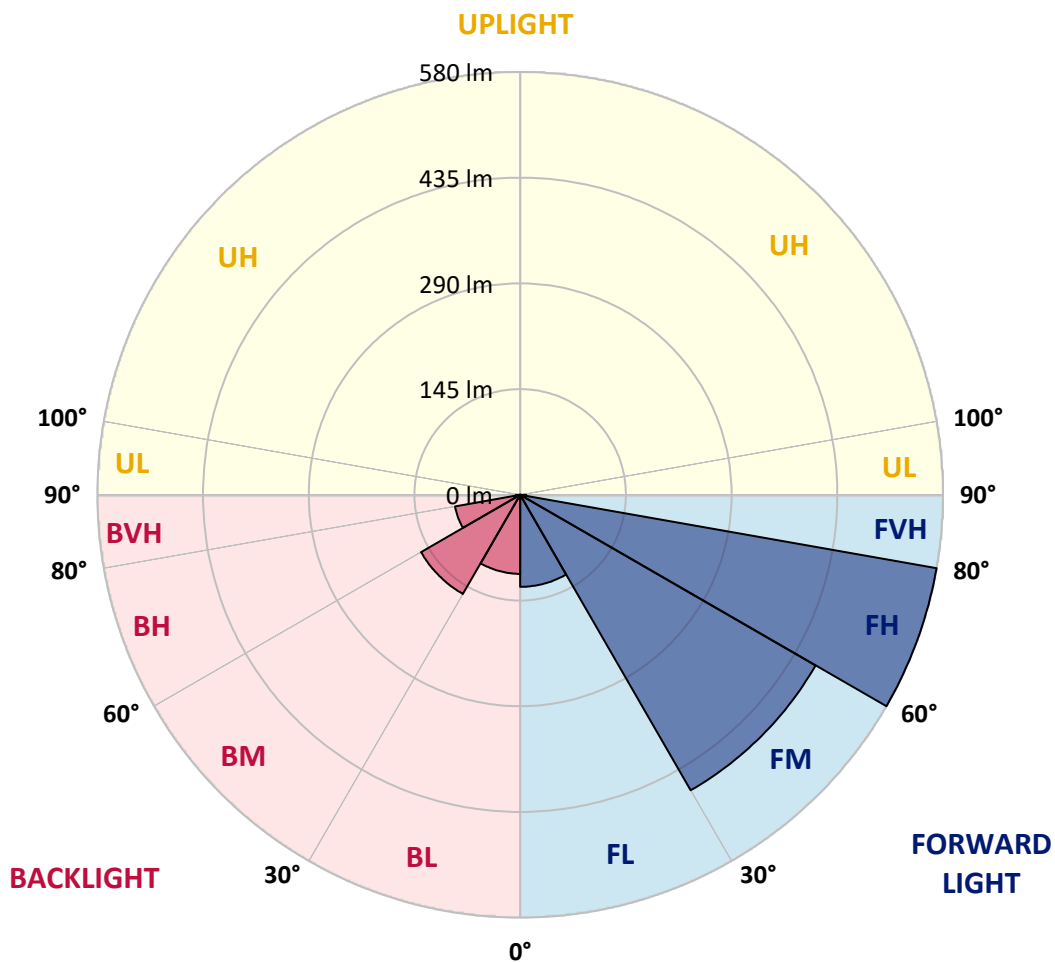
CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7030-CWB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	126.3	8.2			
FM	(30°-60°)	468.2	30.3			
FH	(60°-80°)	580.3	37.6			G0/660
FVH	(80°-90°)	8.2	0.5			G0/10
BL	(0°-30°)	108.5	7.0	B0/110		
BM	(30°-60°)	157.2	10.2	B0/220		
BH	(60°-80°)	90.7	5.9	B0/110		G0/110
BVH	(80°-90°)	5.6	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: P173495
 CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7030-CWB

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9
2.5°	329.1	329.1	329.7	329.7	330.6	331.2	330.6	331.8	331.8	331.5	332.1
5°	324.4	324.4	324.7	324.7	325.3	326.2	325.6	326.8	326.4	326.8	326.8
7.5°	318.8	318.8	319.4	319.1	319.4	319.9	318.5	319.4	319.4	319.7	319.4
10°	311.7	312.3	312.9	312.6	312.6	312.9	310.5	311.4	311.1	311.1	310.8
12.5°	305.2	304.6	305.2	305.8	305.5	305.5	303.1	302.5	302.5	302.5	302.8
15°	298.4	299.0	299.8	299.0	298.4	297.2	294.8	294.2	294.2	294.2	294.5
17.5°	296.9	296.9	297.5	296.6	294.2	291.9	287.1	286.2	286.2	285.9	285.9
20°	301.0	300.7	301.6	299.8	294.5	288.3	280.9	279.4	279.4	279.4	279.1
22.5°	309.6	309.6	311.1	309.0	300.5	288.6	277.7	275.3	275.0	274.7	274.1
25°	326.2	325.9	326.8	321.4	309.0	292.5	276.8	273.2	272.9	272.3	271.8
27.5°	345.4	346.0	347.8	339.8	321.4	299.3	280.6	274.7	274.1	273.2	272.1
30°	364.3	366.1	369.3	360.8	335.6	307.8	286.5	279.7	278.6	277.4	275.3
32.5°	388.3	387.7	393.0	380.0	348.0	317.0	292.7	284.5	283.0	281.2	278.6
35°	413.7	414.9	416.1	395.1	358.4	324.4	296.6	287.1	285.4	283.6	279.7
37.5°	439.1	439.4	436.8	407.2	364.6	328.8	298.7	287.7	285.4	282.7	278.3
40°	462.5	461.6	453.6	416.4	368.2	331.2	299.5	286.5	283.6	280.9	275.9
42.5°	475.8	474.9	464.9	420.5	368.4	330.9	299.5	285.4	282.1	278.9	273.2
45°	481.4	480.8	469.3	421.1	366.4	329.1	297.8	284.2	280.9	277.9	272.1
47.5°	482.0	482.0	470.2	420.2	364.6	327.9	297.8	285.7	283.0	280.6	276.2
50°	479.3	479.7	470.5	422.6	366.1	330.6	300.7	289.2	286.5	284.2	279.1
52.5°	510.7	507.7	487.3	433.2	375.9	339.2	310.8	300.5	299.5	298.1	294.2
55°	750.2	752.6	641.1	499.8	416.9	383.2	371.4	369.3	375.9	378.2	378.2
57.5°	952.5	944.8	902.8	729.2	545.3	504.8	509.5	514.5	524.0	528.1	531.1
60°	1001.8	1002.5	1001.3	951.9	804.9	712.7	689.6	667.7	666.8	659.1	653.2
62.5°	996.0	1000.7	1022.9	1034.1	1048.6	980.9	840.1	779.5	767.7	753.2	732.5
65°	953.1	960.1	995.7	1050.3	1175.2	1230.7	941.5	833.0	814.7	797.2	762.3
67.5°	812.0	827.4	895.4	998.6	1190.2	1331.0	958.1	807.0	782.7	760.0	718.6
70°	501.2	509.2	614.2	805.8	1078.5	1213.6	870.0	684.9	654.1	625.1	568.7
72.5°	323.5	320.8	338.6	453.9	792.5	943.0	598.2	455.4	430.2	407.2	370.8
75°	226.5	226.8	218.8	216.5	367.6	584.0	270.9	194.6	183.3	178.6	170.9
77.5°	147.6	149.3	147.2	152.9	147.2	242.8	124.5	91.4	86.9	84.0	79.3
80°	89.0	94.9	96.7	97.9	99.4	91.7	73.9	53.8	48.5	43.5	35.8
82.5°	15.7	15.4	21.3	28.7	37.6	42.9	31.0	19.5	18.3	17.7	16.3
85°	0.0	0.0	0.3	0.3	0.6	2.1	3.2	3.9	3.6	3.9	4.1
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



REPORT NUMBER: P173495
 CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7030-CWB

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9
2.5°	332.1	331.8	331.5	331.5	332.1	332.1	331.8	331.8	332.1	331.8	332.4
5°	327.1	326.8	326.8	326.4	326.8	327.1	326.8	326.8	327.1	326.8	327.4
7.5°	319.1	319.4	319.1	319.1	319.4	319.7	319.4	319.4	319.4	319.4	319.1
10°	310.8	310.8	310.5	310.5	311.1	310.8	310.5	310.5	310.8	311.1	310.5
12.5°	302.5	303.1	303.1	301.9	302.2	302.5	302.5	302.2	302.2	303.1	302.2
15°	294.2	294.5	294.2	294.5	293.9	293.7	293.9	293.9	293.3	293.0	293.0
17.5°	285.9	285.7	285.7	285.1	284.8	284.8	284.5	284.8	284.2	284.5	283.6
20°	278.6	278.3	277.9	277.9	277.1	277.1	277.1	276.8	276.2	276.2	275.9
22.5°	274.1	273.8	273.5	272.9	272.6	272.3	272.3	272.1	271.5	271.2	270.9
25°	271.8	271.5	270.9	270.3	270.0	269.7	269.7	269.4	268.8	268.2	267.9
27.5°	272.1	271.5	270.9	270.3	270.0	269.4	269.1	268.8	268.2	267.6	267.0
30°	274.7	273.5	272.3	271.5	270.6	269.7	269.1	268.8	267.9	267.0	266.1
32.5°	277.4	275.9	274.1	272.3	270.9	269.4	268.5	267.6	266.4	265.0	264.1
35°	278.3	276.5	273.8	272.3	270.3	268.5	267.0	265.8	263.8	262.0	260.5
37.5°	276.2	274.1	271.5	269.4	267.3	265.0	263.2	261.4	259.9	257.8	256.4
40°	272.9	270.6	267.9	265.0	262.9	260.5	258.8	257.3	255.2	253.4	252.2
42.5°	270.3	267.6	264.6	262.3	259.9	257.6	255.5	254.0	252.0	249.9	248.4
45°	269.4	266.7	264.4	261.4	259.0	257.3	255.5	253.4	251.7	249.9	248.1
47.5°	274.1	271.8	269.4	267.0	265.0	262.9	261.1	259.0	257.0	254.6	252.8
50°	276.8	274.1	272.1	269.4	267.0	265.0	263.2	261.1	259.6	257.3	255.5
52.5°	296.0	292.5	293.0	290.7	290.7	288.3	290.1	287.4	288.9	287.1	289.8
55°	377.3	378.5	385.9	387.1	390.0	389.7	391.5	399.2	396.3	392.4	393.6
57.5°	523.1	525.8	529.6	526.1	528.7	529.3	534.3	532.3	530.5	529.3	525.5
60°	649.7	646.1	640.5	633.7	631.0	628.1	623.0	623.0	616.5	614.5	609.5
62.5°	723.9	713.5	706.4	695.5	687.8	682.5	673.6	666.8	657.9	651.2	643.2
65°	748.1	730.7	718.3	704.7	692.6	681.0	668.3	658.5	647.6	640.2	627.5
67.5°	701.1	683.4	662.4	647.9	635.2	620.7	600.9	588.8	579.3	565.1	558.9
70°	545.9	527.2	500.9	493.8	474.3	451.8	431.7	419.6	405.7	396.0	385.6
72.5°	346.3	325.3	313.8	305.2	292.5	273.8	256.4	249.3	237.2	234.5	227.7
75°	162.6	148.4	145.5	143.4	129.5	126.9	121.5	119.2	113.5	110.6	109.4
77.5°	72.7	69.5	64.2	62.7	58.2	53.8	48.5	46.1	43.2	41.4	39.0
80°	33.1	29.9	27.8	26.3	25.7	24.2	23.1	22.2	21.3	21.3	19.8
82.5°	16.0	15.4	14.8	14.8	13.9	13.9	13.0	12.7	12.4	12.1	12.1
85°	4.4	4.4	4.4	4.7	4.7	4.7	4.7	4.7	4.7	5.0	5.0
87.5°	0.6	0.6	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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: P173495
 CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7030-CWB

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9
2.5°	332.1	332.1	332.1	332.7	332.4	333.2	333.2	333.2	333.9	334.2	333.9
5°	327.4	327.4	327.4	327.6	327.6	328.2	328.2	328.8	328.8	329.1	329.1
7.5°	319.7	319.9	319.9	320.6	320.3	320.6	320.6	321.4	321.4	321.7	321.7
10°	310.8	311.1	311.1	311.1	311.4	311.7	311.7	312.3	312.6	312.6	313.1
12.5°	302.5	302.2	302.5	302.2	303.1	303.1	303.4	303.1	303.4	303.7	304.0
15°	293.3	293.3	293.0	293.3	293.3	293.0	292.7	293.0	293.7	293.7	293.7
17.5°	284.2	283.3	283.3	283.3	283.0	282.4	283.0	282.7	282.7	283.0	282.7
20°	275.6	275.3	275.0	274.7	274.4	273.5	273.5	273.5	273.2	273.2	273.2
22.5°	270.3	270.0	269.7	269.4	268.2	267.6	267.3	267.0	266.4	266.1	265.8
25°	267.3	266.7	266.1	265.5	264.6	263.8	262.9	262.6	262.0	261.4	260.5
27.5°	266.4	265.8	264.6	264.1	262.9	262.0	261.1	260.2	259.3	258.5	257.6
30°	265.0	264.1	262.9	262.0	261.1	259.6	258.5	257.6	256.1	255.2	254.0
32.5°	262.9	261.7	260.5	259.3	258.2	256.7	255.2	254.0	252.8	251.7	250.2
35°	259.3	257.8	256.1	254.9	253.4	252.0	250.8	248.7	247.8	246.3	244.9
37.5°	254.6	253.1	251.7	250.2	248.4	247.2	245.4	243.7	242.8	241.9	239.8
40°	250.5	248.7	247.2	246.0	244.0	243.1	241.3	239.5	238.4	237.4	235.7
42.5°	246.6	244.9	243.4	241.6	240.1	238.9	237.4	235.7	234.5	233.9	232.4
45°	246.6	244.5	242.8	241.3	239.8	238.4	237.2	235.4	234.5	233.3	232.4
47.5°	250.8	248.4	246.3	244.2	242.2	240.7	238.9	237.2	235.7	234.8	233.6
50°	253.7	251.3	250.2	247.8	246.6	244.5	242.5	241.6	240.1	239.2	238.9
52.5°	289.8	288.3	288.6	282.7	281.5	284.5	279.7	283.9	282.7	279.1	279.1
55°	400.4	399.8	402.5	395.1	391.8	397.7	400.1	391.5	393.6	393.6	393.0
57.5°	529.3	525.5	521.6	522.5	517.8	521.3	516.9	511.6	513.6	511.9	505.7
60°	606.2	603.8	598.2	592.9	587.9	583.1	579.0	574.3	571.9	567.7	563.3
62.5°	637.3	631.0	624.2	617.2	609.2	601.5	596.7	590.5	584.0	579.9	575.2
65°	620.7	611.5	604.1	593.8	585.2	575.7	569.5	562.4	556.5	549.4	543.5
67.5°	546.8	536.1	516.6	507.1	494.4	479.7	475.5	466.9	463.7	453.0	435.6
70°	372.3	361.6	349.8	330.6	318.2	305.5	291.6	281.5	280.0	271.5	258.8
72.5°	218.8	211.4	203.7	192.8	183.6	178.6	168.8	158.8	158.5	148.7	143.7
75°	103.5	99.7	92.0	89.3	81.0	80.4	74.2	73.0	74.2	71.3	70.7
77.5°	35.2	34.3	32.5	30.2	28.4	27.8	26.3	25.4	24.8	24.2	23.7
80°	19.2	18.6	18.3	17.5	16.9	16.5	15.7	15.4	15.1	14.8	14.5
82.5°	11.5	11.8	11.2	10.7	10.7	10.1	9.7	9.5	9.2	9.2	9.2
85°	4.7	5.0	4.7	4.4	4.1	4.4	4.4	4.1	3.9	4.1	4.1
87.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
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: P173495

CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7030-CWB

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9
2.5°	333.2	333.0	333.0	332.7	332.4	333.0	333.6	334.4	333.9	334.4	334.7
5°	328.5	328.5	328.5	328.8	328.5	329.4	330.6	332.4	332.7	333.9	334.7
7.5°	320.8	320.8	321.1	321.4	321.1	322.3	324.4	326.4	327.9	330.0	331.8
10°	312.0	312.0	312.0	312.0	312.3	313.8	315.2	317.6	319.9	323.2	325.9
12.5°	304.0	303.1	303.4	304.0	303.4	303.4	304.9	306.6	308.1	312.3	317.0
15°	293.3	293.3	292.7	293.0	291.6	291.3	291.9	293.0	294.2	297.8	302.8
17.5°	282.1	282.1	282.1	281.2	280.0	277.1	276.8	276.8	276.8	279.4	285.4
20°	272.1	272.1	271.5	270.9	268.2	263.2	259.0	257.3	256.7	261.1	263.8
22.5°	265.0	264.6	263.5	262.9	258.8	250.8	244.2	239.2	237.7	239.2	240.1
25°	259.3	258.8	257.6	256.4	250.8	239.8	229.5	220.9	216.8	215.6	212.6
27.5°	256.1	255.2	253.4	252.2	244.9	230.9	217.3	206.1	198.4	192.8	187.5
30°	252.5	251.0	249.3	247.5	239.2	223.8	208.2	194.3	180.7	170.9	163.2
32.5°	248.4	246.9	245.2	243.4	234.2	217.3	200.8	183.6	164.7	151.4	139.9
35°	243.4	241.9	240.1	238.0	228.9	212.0	195.7	173.3	150.5	133.4	118.3
37.5°	238.4	236.9	235.1	233.0	223.8	209.4	192.8	163.5	137.5	116.5	96.7
40°	234.5	233.0	231.2	229.5	221.2	208.2	191.3	155.2	126.0	99.9	77.2
42.5°	231.2	229.8	228.3	226.5	219.4	208.8	188.1	148.2	114.7	83.4	60.6
45°	230.9	230.1	228.3	226.8	220.0	211.4	185.4	141.9	103.2	67.4	51.2
47.5°	233.0	231.8	230.6	229.5	224.1	218.2	183.6	135.4	90.2	54.4	48.8
50°	238.0	236.9	236.3	235.7	232.4	227.4	183.6	128.6	75.1	47.9	48.5
52.5°	278.6	275.3	274.4	276.8	267.9	242.8	184.8	120.3	58.9	45.8	48.8
55°	391.8	395.1	386.8	382.7	367.3	280.9	185.7	107.9	47.9	45.6	48.2
57.5°	506.3	506.3	503.3	496.8	477.9	346.0	189.9	88.1	43.8	44.9	47.6
60°	562.1	558.6	555.6	551.8	523.1	391.2	196.1	65.0	42.0	44.6	47.0
62.5°	572.2	566.6	562.7	557.7	519.6	393.6	198.7	48.8	40.2	44.6	45.6
65°	539.1	533.2	528.1	519.9	473.4	356.3	185.4	39.9	39.0	43.5	44.1
67.5°	436.8	429.7	425.8	421.7	390.9	312.9	149.9	35.8	37.6	41.4	42.6
70°	249.9	242.2	237.7	238.6	220.0	247.5	119.8	32.8	35.5	39.0	40.8
72.5°	134.6	126.3	123.6	115.0	98.2	124.8	92.3	30.2	32.8	35.5	37.3
75°	66.5	63.6	64.5	60.3	51.2	38.4	59.4	26.9	29.3	31.9	33.1
77.5°	23.1	22.5	22.2	21.9	21.3	20.4	27.2	23.1	25.1	27.2	28.4
80°	14.2	13.9	14.2	13.9	13.6	15.7	17.5	18.3	20.1	22.8	23.1
82.5°	8.6	8.6	8.6	8.6	8.6	10.9	12.4	14.2	15.7	17.5	18.9
85°	4.1	4.1	4.1	4.1	4.4	7.4	8.3	10.4	10.9	12.4	13.6
87.5°	0.9	0.9	0.9	0.9	1.2	3.9	5.0	6.2	6.5	6.5	7.4
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: P173495
 CATALOG NUMBER: ENT-EXX-LED-E1-BL4-7030-CWB

CANDELA DISTRIBUTION (continued):

	165°	175°	180°
0°	333.9	333.9	333.9
2.5°	334.4	333.9	333.6
5°	335.3	334.7	334.4
7.5°	333.0	333.2	333.0
10°	327.9	328.8	329.1
12.5°	319.9	321.7	322.9
15°	306.6	309.3	308.7
17.5°	288.9	292.2	292.2
20°	266.7	268.2	267.3
22.5°	239.5	240.1	239.2
25°	210.8	210.8	209.7
27.5°	184.2	182.8	181.9
30°	158.8	155.0	153.8
32.5°	131.9	125.4	125.4
35°	104.7	99.4	97.9
37.5°	81.3	75.4	73.6
40°	62.4	58.0	57.7
42.5°	52.6	51.7	52.0
45°	50.3	51.4	51.4
47.5°	50.6	52.0	52.4
50°	50.9	52.4	52.6
52.5°	50.9	51.7	51.7
55°	50.3	50.3	50.3
57.5°	49.1	48.8	49.4
60°	48.2	48.2	48.2
62.5°	46.7	46.7	46.7
65°	44.4	44.6	44.6
67.5°	42.0	42.0	42.0
70°	39.0	39.0	39.6
72.5°	36.1	37.3	37.8
75°	34.0	36.1	37.0
77.5°	29.9	31.9	33.1
80°	24.5	24.8	24.8
82.5°	19.5	18.9	18.0
85°	13.9	13.0	13.0
87.5°	7.4	7.1	7.4
90°	0.0	0.0	0.0

(END OF REPORT)