

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: P173518

Luminaire Tested: **ENT-EXX-LED-E1-GZW-7050-BBB**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P173518  
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-EXX-LED-E1-GZW-7050-BBB  
Description: ENTRI LED LUMINAIRE, EMERGENCY MODE  
LIGHTBARS WITH AccuLED OPTICS - WALL GRAZER WIDE  
Light Source: (42) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1850.3 lumens  
Efficiency: N/A  
Efficacy: 336.4 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

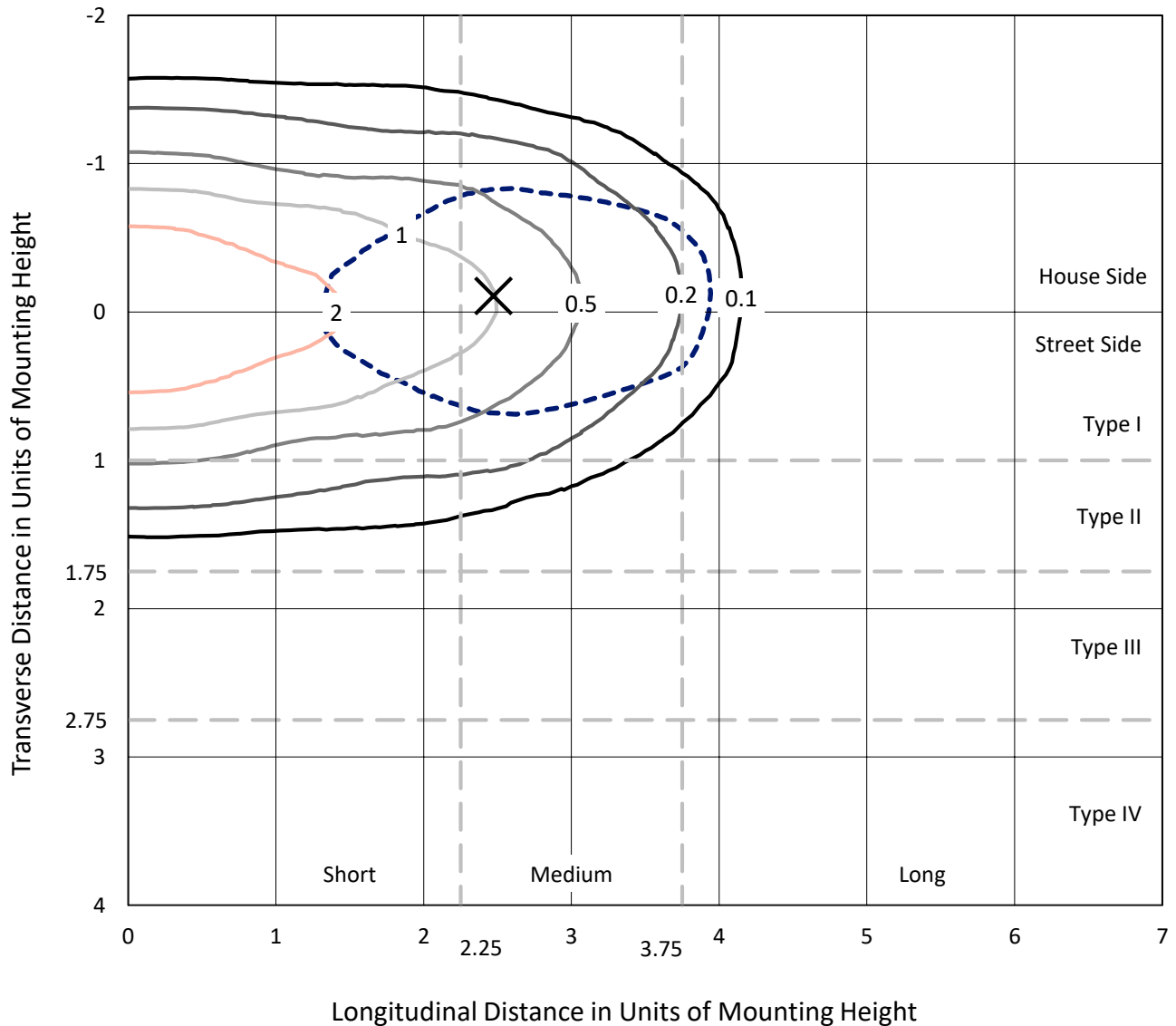
Input Watts (W): 5.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P173518  
 CATALOG NUMBER: ENT-EXX-LED-E1-GZW-7050-BBB

### Iso-Footcandle Lines of Horizontal Illumination

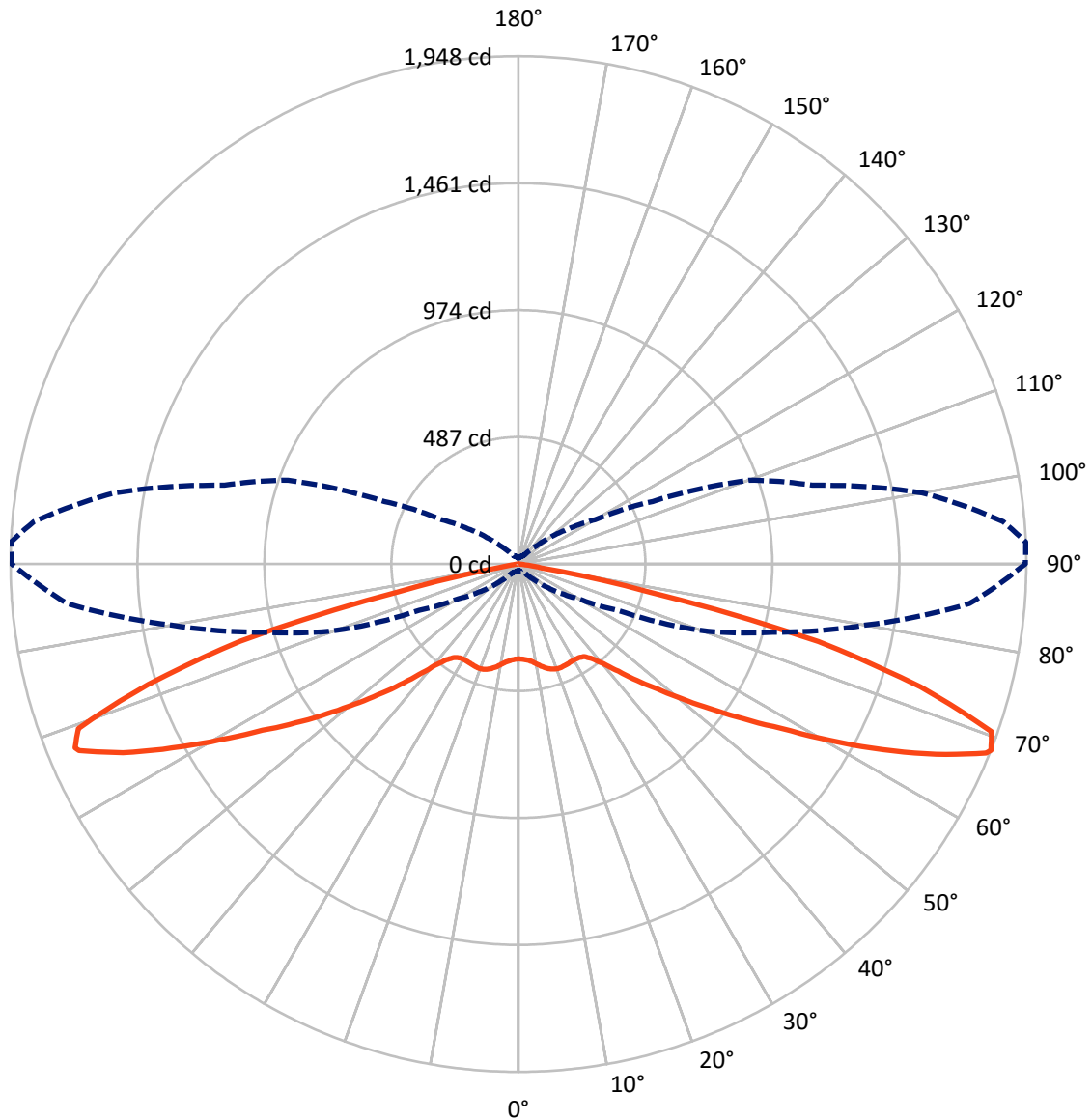
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.7 fc  
 Type I - Short - Full Cutoff

REPORT NUMBER: P173518  
CATALOG NUMBER: ENT-EXX-LED-E1-GZW-7050-BBB

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P173518

CATALOG NUMBER: ENT-EXX-LED-E1-GZW-7050-BBB

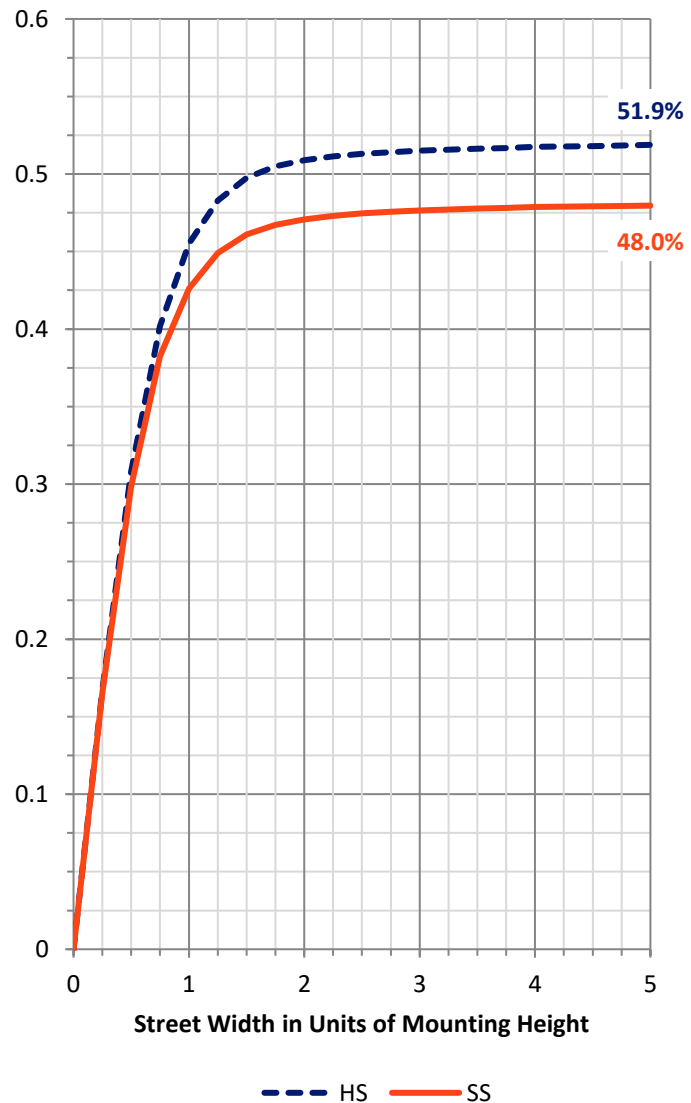
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	966.6	0.0	966.6
	% Fixture	52.2	0.0	52.2
<b>Street Side</b>	Lumens	883.7	0.0	883.7
	% Fixture	47.8	0.0	47.8
<b>Total</b>	Lumens	1850.3	0.0	1850.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.8	1.9
10°-20°	113.1	6.1
20°-30°	183.5	9.9
30°-40°	228.1	12.3
40°-50°	283.6	15.3
50°-60°	348.8	18.9
60°-70°	412.4	22.3
70°-80°	231.0	12.5
80°-90°	14.0	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°	1850.3	100.0
0°-180°	1850.3	100.0



REPORT NUMBER: P173518

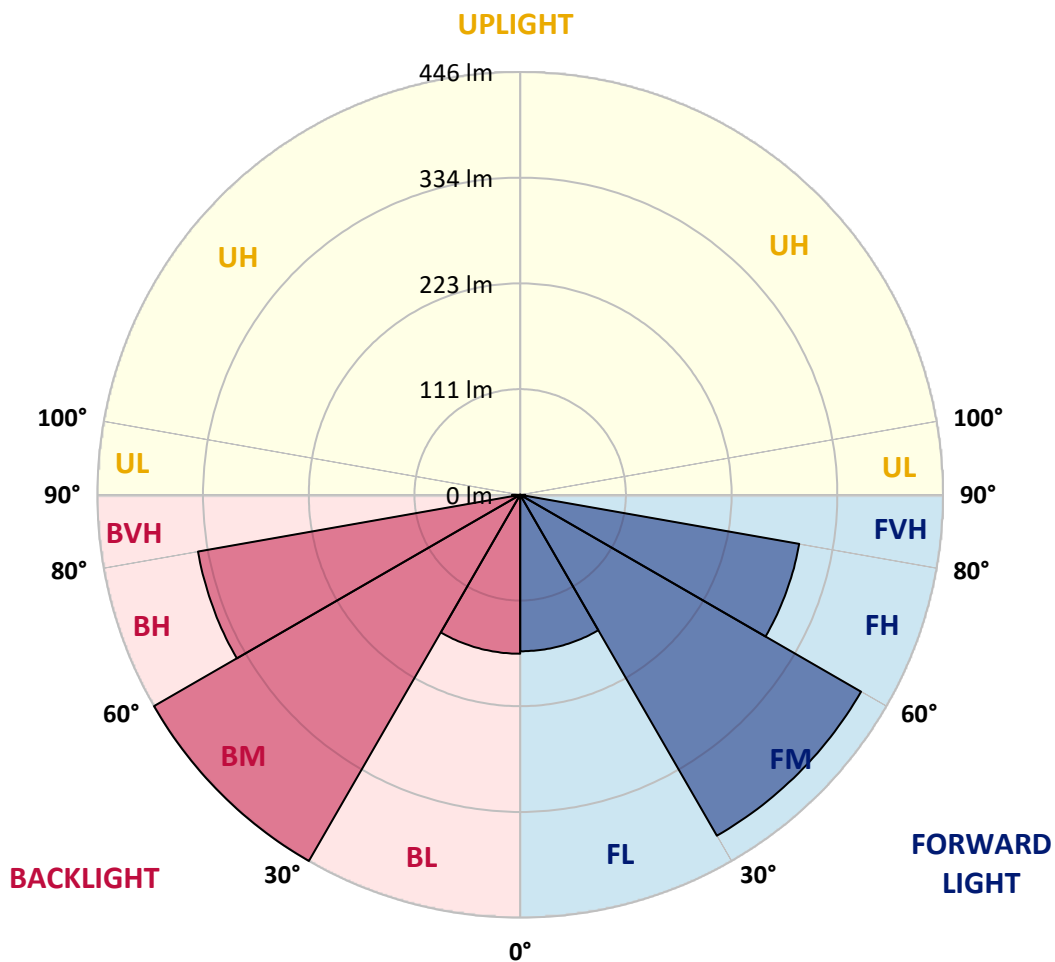
CATALOG NUMBER: ENT-EXX-LED-E1-GZW-7050-BBB

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	164.9	8.9			
FM	(30°-60°)	414.9	22.4			
FH	(60°-80°)	298.6	16.1			G0/660
FVH	(80°-90°)	5.3	0.3			G0/10
BL	(0°-30°)	167.5	9.1	B1/500		
BM	(30°-60°)	445.6	24.1	B1/1000		
BH	(60°-80°)	344.8	18.6	B1/500		G1/500
BVH	(80°-90°)	8.7	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





REPORT NUMBER: P173518  
 CATALOG NUMBER: ENT-EXX-LED-E1-GZW-7050-BBB

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8
2.5°	365.4	365.4	365.4	365.8	366.1	366.8	366.4	367.1	366.1	367.4	367.4
5°	369.8	370.1	370.4	370.4	371.1	371.4	371.1	372.1	371.1	372.4	372.7
7.5°	373.8	373.8	374.1	374.4	375.1	375.7	376.1	377.1	376.7	378.1	379.4
10°	376.7	376.4	376.7	377.4	379.1	380.1	381.4	382.7	383.4	384.7	386.7
12.5°	378.1	377.7	378.7	380.4	382.0	384.0	386.0	389.0	391.0	393.0	396.0
15°	377.4	377.4	378.7	380.7	384.0	387.7	391.4	395.3	399.0	403.3	406.3
17.5°	371.1	371.7	373.8	377.1	382.0	387.7	393.7	400.3	406.3	412.3	416.3
20°	359.8	360.4	364.1	368.1	374.7	383.0	392.3	402.0	411.3	419.2	424.9
22.5°	345.8	345.2	348.5	353.8	362.8	372.7	384.7	399.0	411.6	422.9	430.9
25°	324.2	324.2	327.9	334.5	344.2	356.5	371.1	389.4	406.3	420.9	432.2
27.5°	301.3	301.6	306.3	311.9	322.9	334.5	351.5	372.7	393.3	412.6	429.2
30°	278.4	279.4	283.4	289.0	300.6	312.9	330.2	351.2	373.4	397.3	419.9
32.5°	254.8	256.1	259.5	266.1	278.7	292.4	310.0	328.6	349.8	376.1	405.3
35°	232.6	233.6	236.2	244.2	257.1	271.8	291.4	309.3	330.9	355.1	387.3
37.5°	211.6	212.6	215.6	223.9	236.9	251.5	270.8	291.0	313.3	337.2	369.1
40°	189.0	191.3	195.4	203.3	215.3	231.9	251.5	272.7	296.3	323.6	356.1
42.5°	168.4	170.4	174.1	181.0	193.0	210.6	231.2	253.1	278.7	309.6	346.5
45°	149.5	151.2	154.8	161.1	173.8	187.7	206.3	229.2	255.8	291.4	336.2
47.5°	131.2	132.9	136.9	144.5	154.8	168.4	185.0	205.3	229.9	266.1	316.6
50°	113.0	114.6	118.6	126.2	136.2	149.5	164.8	183.1	207.3	238.5	288.0
52.5°	93.0	94.7	98.7	106.3	115.9	128.6	144.2	163.1	185.7	215.3	256.1
55°	71.4	73.8	77.4	83.7	94.0	106.6	122.3	142.8	165.8	194.7	232.6
57.5°	51.5	53.2	57.5	62.5	71.1	84.4	98.3	119.6	145.2	174.7	212.3
60°	37.5	39.2	42.2	46.2	52.2	61.8	74.1	94.0	122.3	155.5	194.0
62.5°	31.2	32.6	35.5	39.5	42.9	47.5	54.8	70.1	97.7	134.6	175.1
65°	27.6	28.6	31.2	35.2	37.9	39.9	42.9	53.2	75.8	112.0	156.5
67.5°	24.6	25.6	27.6	30.9	33.9	34.9	36.6	43.5	59.5	91.0	136.9
68°	24.2	25.3	26.9	29.9	32.9	33.9	35.5	42.5	57.8	86.7	131.5
70°	22.6	23.2	24.9	27.2	29.6	30.2	32.2	39.2	54.2	75.8	106.6
72.5°	20.6	20.9	21.9	23.9	26.3	26.6	28.6	34.2	42.5	55.8	79.4
75°	17.3	17.6	18.9	20.6	21.9	22.6	23.2	25.9	28.9	34.5	46.8
77.5°	13.3	14.0	15.0	16.0	17.9	18.6	17.9	19.9	21.3	23.6	28.6
80°	8.0	8.0	9.0	10.0	11.0	12.6	11.9	14.0	15.0	16.3	19.3
82.5°	1.3	1.7	1.7	2.3	3.0	3.7	4.0	5.0	6.3	7.6	10.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	1.0
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



REPORT NUMBER: P173518  
 CATALOG NUMBER: ENT-EXX-LED-E1-GZW-7050-BBB

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	92.5°	95°	100°
0°	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8
2.5°	365.4	366.4	366.4	366.1	366.1	366.1	365.1	365.4	365.8	366.8	365.4
5°	370.7	371.7	371.4	371.1	371.1	371.1	369.8	370.1	370.4	371.1	369.8
7.5°	377.7	378.7	379.1	379.1	379.1	379.7	377.7	377.7	378.4	379.1	377.1
10°	388.0	388.0	389.0	389.7	390.4	391.0	389.7	389.0	390.4	390.4	388.0
12.5°	397.6	398.3	400.0	401.3	401.7	403.0	403.0	402.6	403.6	403.3	400.7
15°	408.6	409.3	410.6	412.3	412.6	413.9	413.9	414.3	415.3	415.9	412.0
17.5°	418.9	419.9	419.9	420.2	420.9	421.9	422.6	422.9	423.9	424.6	420.6
20°	427.6	428.6	426.9	425.6	424.2	424.9	426.2	427.6	428.2	428.6	423.6
22.5°	434.2	434.5	431.9	428.2	424.6	424.2	425.9	428.2	428.9	428.6	421.6
25°	437.9	438.9	436.2	430.5	423.9	421.6	423.3	426.2	427.6	426.2	417.9
27.5°	437.9	441.5	440.2	434.2	425.2	418.9	419.9	424.6	425.6	423.9	414.3
30°	434.5	442.2	443.8	440.2	430.9	419.9	418.6	423.9	425.2	422.3	412.6
32.5°	427.9	441.8	448.5	448.8	441.5	427.9	421.2	426.6	427.6	423.9	415.9
35°	418.6	441.5	454.5	460.8	458.4	444.8	433.2	436.5	435.9	431.9	428.9
37.5°	408.3	441.5	463.1	477.7	483.1	476.1	460.8	459.1	460.8	454.8	453.1
40°	397.0	442.5	475.4	501.3	517.2	519.6	506.0	501.3	503.3	497.7	500.0
42.5°	390.4	443.8	491.7	528.9	559.8	583.4	577.4	563.4	562.4	563.1	568.1
45°	387.0	447.1	508.0	560.1	603.3	655.8	661.4	636.5	637.8	641.5	649.1
47.5°	383.4	453.5	526.9	592.7	650.8	724.5	752.1	718.6	715.9	729.5	731.9
50°	370.1	461.1	548.5	629.2	700.7	802.0	845.5	811.3	811.9	824.6	819.9
52.5°	339.5	461.5	571.4	665.8	750.5	878.4	944.5	921.9	920.2	932.5	907.9
55°	297.3	440.5	590.0	701.6	797.7	949.5	1046.8	1051.8	1048.5	1050.4	997.3
57.5°	263.4	389.0	592.0	731.9	837.5	1016.9	1151.8	1187.7	1188.0	1179.4	1085.0
60°	241.5	331.2	566.1	756.8	884.0	1103.0	1288.7	1369.1	1373.7	1338.5	1202.3
62.5°	223.2	302.0	512.6	782.4	937.5	1190.0	1436.2	1568.4	1568.7	1509.9	1331.5
65°	209.0	286.0	453.8	772.7	978.7	1274.4	1592.3	1769.0	1760.4	1695.6	1454.1
67.5°	193.0	271.8	426.6	757.8	1013.9	1352.5	1729.8	1932.8	1935.2	1855.4	1567.7
68°	189.7	266.4	419.6	745.2	1009.9	1349.8	1737.1	1943.8	1947.8	1865.7	1572.7
70°	163.4	232.6	365.1	650.8	938.2	1277.7	1690.7	1912.9	1925.2	1833.5	1517.2
72.5°	109.0	160.8	243.9	459.8	722.9	1015.3	1384.0	1602.3	1612.6	1550.8	1260.1
75°	69.1	97.7	129.6	265.1	485.7	728.5	1043.5	1170.7	1187.7	1167.4	943.5
77.5°	41.9	68.4	79.7	128.6	255.8	340.9	471.4	479.7	499.0	487.0	489.0
80°	27.6	47.5	58.1	87.4	88.7	73.4	83.4	84.0	89.0	94.7	98.7
82.5°	15.6	28.9	40.5	59.8	52.8	27.2	23.2	24.2	24.9	25.6	30.2
85°	2.3	5.3	11.3	18.6	18.9	9.0	8.3	7.6	8.0	8.6	11.0
87.5°	0.0	0.0	0.0	0.0	0.3	0.7	1.0	1.0	1.0	2.0	2.0
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: P173518

CATALOG NUMBER: ENT-EXX-LED-E1-GZW-7050-BBB

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8	363.8
2.5°	365.1	364.8	365.1	364.1	365.1	364.8	364.8	364.8	364.4	364.8	364.8
5°	369.1	369.1	369.1	368.4	369.1	369.1	369.1	369.1	368.8	369.1	369.4
7.5°	376.7	376.7	376.4	375.4	376.1	376.1	375.7	375.1	374.4	374.7	374.4
10°	387.0	387.7	385.7	385.7	384.7	383.4	382.4	381.4	381.0	380.4	379.1
12.5°	399.7	399.3	396.7	395.7	395.0	392.3	390.4	389.4	388.0	386.4	384.4
15°	411.0	409.6	407.6	406.6	405.6	402.6	400.0	397.6	396.0	393.7	390.7
17.5°	418.6	417.3	416.3	415.9	415.9	413.3	411.0	408.0	404.3	400.0	395.0
20°	420.2	420.2	420.6	422.6	424.6	423.6	420.9	417.3	412.0	405.0	397.3
22.5°	417.9	419.2	422.3	427.2	431.5	431.9	429.2	423.9	414.9	405.0	393.7
25°	413.9	417.6	423.9	430.9	436.9	436.9	432.2	424.6	412.3	398.0	383.0
27.5°	412.0	419.2	428.2	435.5	439.5	437.2	428.9	417.9	401.0	382.7	365.4
30°	414.3	425.6	435.2	440.2	440.8	433.2	418.9	402.6	382.7	360.8	343.2
32.5°	422.9	436.5	443.8	444.8	440.2	425.9	403.6	381.0	358.8	338.5	320.6
35°	440.5	452.1	454.8	450.8	439.2	415.3	383.4	356.8	336.9	317.6	299.0
37.5°	469.1	474.4	469.4	457.8	435.9	402.3	364.8	338.8	317.6	298.7	278.1
40°	509.6	503.6	489.4	466.4	432.2	388.0	350.1	324.2	300.6	279.7	259.1
42.5°	560.1	539.2	509.6	476.4	428.2	378.7	339.5	309.6	283.7	260.5	238.9
45°	616.6	577.7	537.5	487.7	426.9	373.1	326.9	291.7	261.4	238.2	216.9
47.5°	674.1	618.6	565.8	500.0	428.6	363.1	307.6	268.1	236.5	213.9	194.0
50°	732.2	664.4	598.6	515.9	427.6	342.8	281.4	241.2	212.0	191.7	173.8
52.5°	790.7	713.2	632.5	530.2	414.3	310.9	252.5	218.3	190.0	170.4	152.8
55°	848.1	760.8	665.8	534.5	375.7	277.4	228.2	195.4	167.4	147.5	128.2
57.5°	902.6	803.6	689.0	509.3	328.2	251.1	206.6	174.4	144.9	121.9	103.0
60°	970.4	844.5	695.7	448.2	290.3	229.2	187.0	150.2	116.9	92.7	75.4
62.5°	1044.5	900.0	685.4	389.7	268.1	210.0	162.8	121.6	89.4	65.8	52.8
65°	1099.0	922.9	633.2	358.5	254.2	191.0	136.9	94.3	61.8	45.2	40.2
67.5°	1171.4	945.5	579.4	343.2	238.9	166.4	105.6	68.1	47.9	37.5	34.5
68°	1166.4	939.2	568.1	339.2	234.2	157.8	99.7	66.8	46.5	36.6	33.5
70°	1099.0	861.8	493.3	300.6	194.0	122.9	85.7	60.8	42.9	33.2	30.6
72.5°	901.6	668.4	353.8	198.0	126.2	90.0	63.5	45.8	35.5	29.2	27.2
75°	638.2	417.9	177.4	114.0	79.4	52.2	35.9	29.6	26.3	23.2	23.2
77.5°	358.8	218.6	93.7	78.1	44.8	30.2	23.9	22.2	20.6	18.9	20.9
80°	116.9	114.0	69.1	53.5	31.2	22.2	18.6	17.6	16.6	15.0	18.6
82.5°	63.1	78.1	49.8	38.2	22.9	16.0	14.0	14.3	13.0	11.6	14.0
85°	28.2	37.2	33.2	26.6	14.3	9.0	7.3	8.6	7.6	7.0	6.6
87.5°	11.0	18.3	13.3	7.6	3.3	2.0	2.0	1.7	1.3	1.3	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: P173518

CATALOG NUMBER: ENT-EXX-LED-E1-GZW-7050-BBB

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	363.8	363.8	363.8	363.8	363.8
2.5°	363.8	363.8	363.5	363.1	362.5
5°	368.4	368.4	368.1	367.8	367.1
7.5°	373.4	373.1	372.7	372.4	371.7
10°	378.7	378.1	378.1	378.4	378.1
12.5°	384.0	383.0	382.0	381.7	382.7
15°	389.4	387.3	385.7	385.4	385.4
17.5°	392.3	389.0	386.0	385.1	385.1
20°	391.7	385.7	381.7	379.7	380.1
22.5°	385.4	377.1	371.7	369.1	368.1
25°	372.1	362.1	355.5	351.8	352.2
27.5°	352.2	341.5	334.2	332.2	330.2
30°	328.6	317.9	310.6	306.3	306.6
32.5°	305.3	293.7	287.0	282.1	281.4
35°	283.0	270.4	262.4	258.8	258.1
37.5°	261.1	247.8	240.5	237.2	234.9
40°	240.8	228.9	220.3	215.3	214.3
42.5°	220.9	207.3	198.7	195.0	194.0
45°	198.3	185.4	177.7	174.7	174.1
47.5°	178.1	165.8	159.5	155.5	154.1
50°	158.5	146.8	139.5	135.9	135.2
52.5°	137.9	126.2	118.6	115.6	113.0
55°	115.3	103.0	95.3	90.0	88.0
57.5°	89.0	78.1	70.1	66.4	62.8
60°	63.8	54.2	47.9	44.8	42.2
62.5°	45.2	38.9	34.9	31.9	30.2
65°	37.2	34.2	29.9	27.2	25.9
67.5°	32.9	29.9	26.6	24.2	23.2
68°	32.2	29.2	25.9	23.6	22.9
70°	29.6	26.6	23.6	21.9	21.3
72.5°	26.3	23.9	21.3	19.6	18.9
75°	22.6	20.3	18.6	17.3	16.3
77.5°	19.9	16.6	16.0	14.6	14.0
80°	16.6	15.0	13.6	12.6	11.9
82.5°	13.6	11.3	9.6	8.6	8.3
85°	7.6	7.0	5.6	4.3	4.0
87.5°	0.7	0.3	0.3	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

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