

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:

Luminaire Tested: **ENT-SA1E-740-U-T4W-HSS-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number:
REPORT IS A COMBINATION OF REPORTS P401698 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1E-740-U-T4W-HSS-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7019.9 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type III - Short
BUG Rating: B1 - U5 - G2

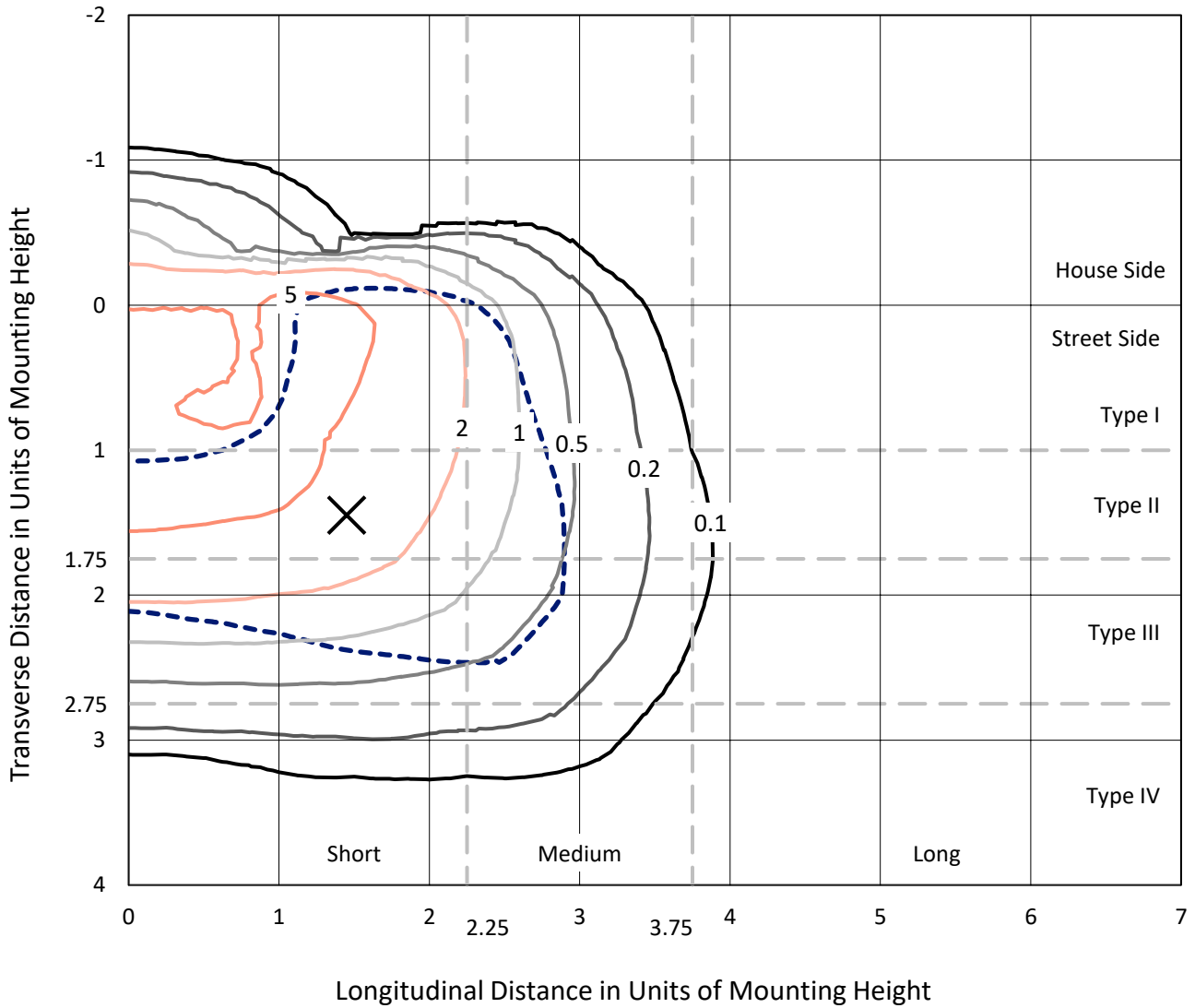
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

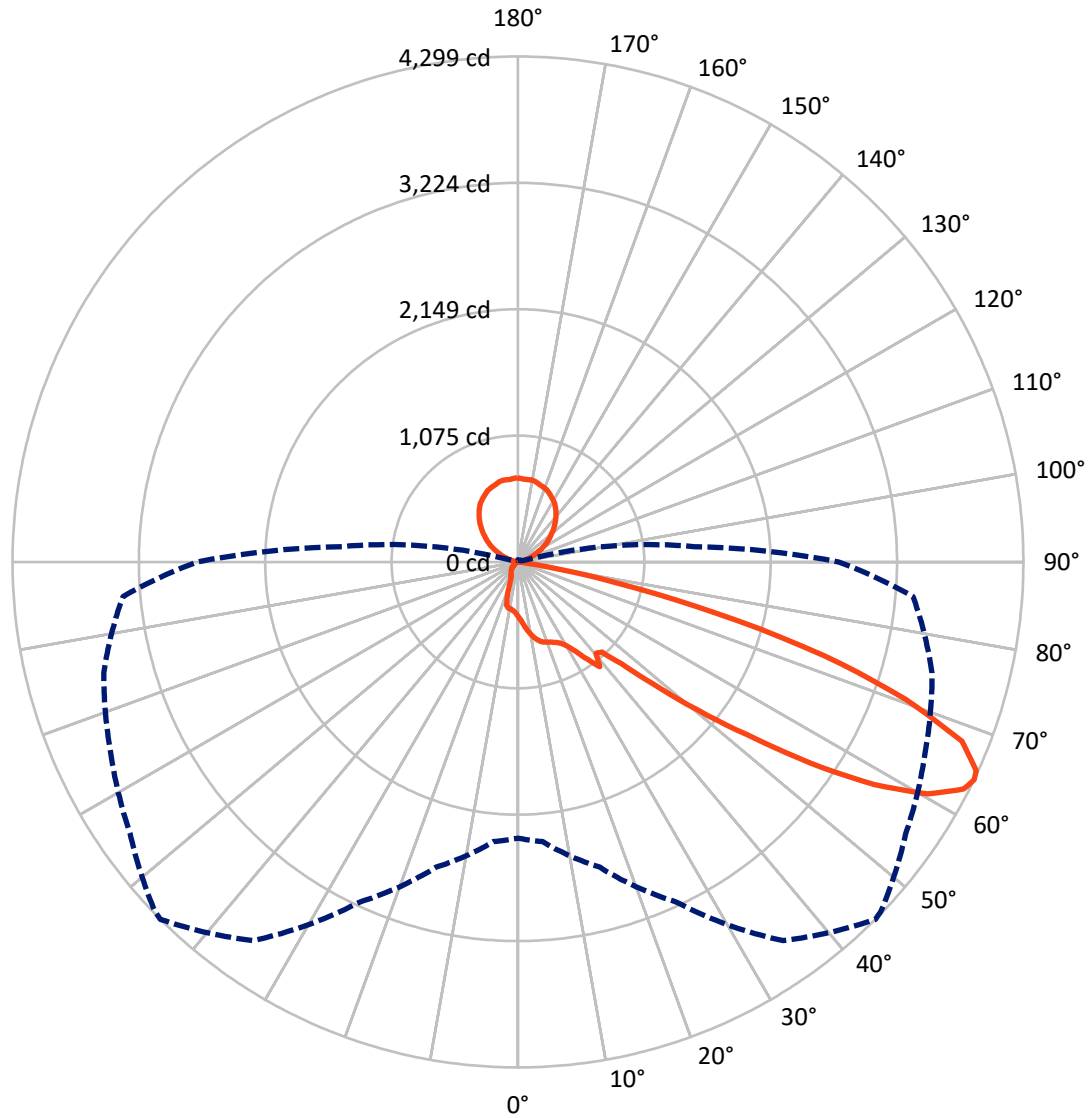
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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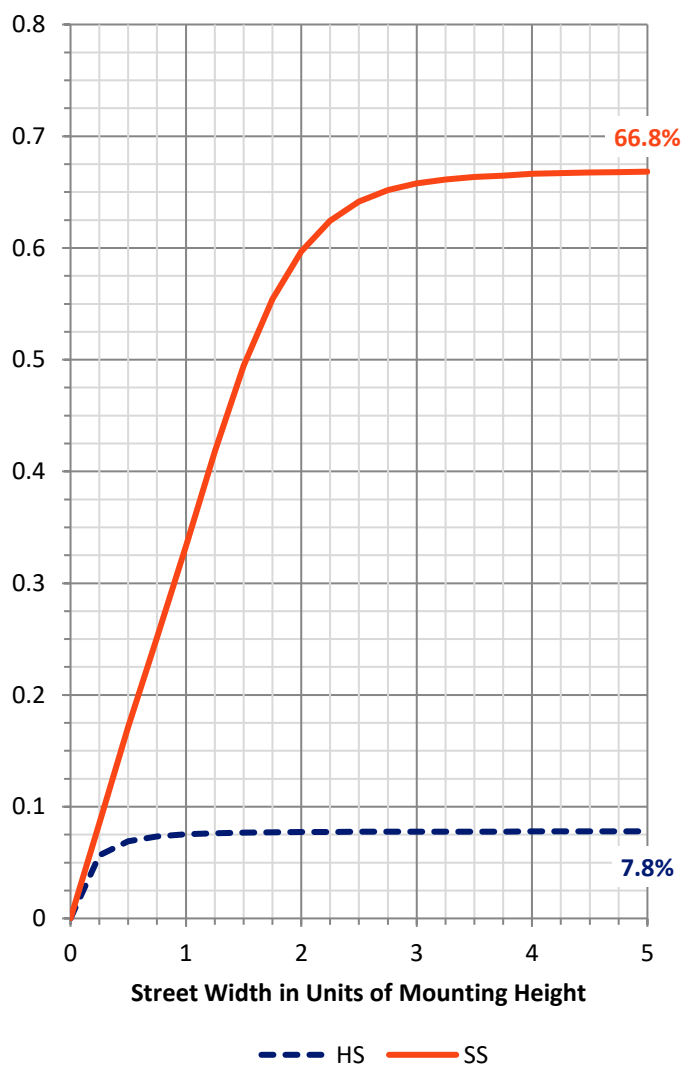
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	553.6	887.0	1440.5
	% Fixture	7.9	12.6	20.5
Street Side	Lumens	4692.5	887.0	5579.4
	% Fixture	66.8	12.6	79.5
Total	Lumens	5246.0	1773.9	7019.9
	% Fixture	74.7	25.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.2	0.7
10°-20°	147.1	2.1
20°-30°	239.4	3.4
30°-40°	380.3	5.4
40°-50°	724.4	10.3
50°-60°	1492.7	21.3
60°-70°	1667.1	23.7
70°-80°	526.6	7.5
80°-90°	21.4	0.3
90°-100°	8.4	0.1
100°-110°	58.7	0.8
110°-120°	169.9	2.4
120°-130°	279.4	4.0
130°-140°	344.6	4.9
140°-150°	352.5	5.0
150°-160°	297.0	4.2
160°-170°	195.5	2.8
170°-180°	67.8	1.0
0°-90°	5246.0	74.7
0°-180°	7019.9	100.0

Coefficient of Utilization

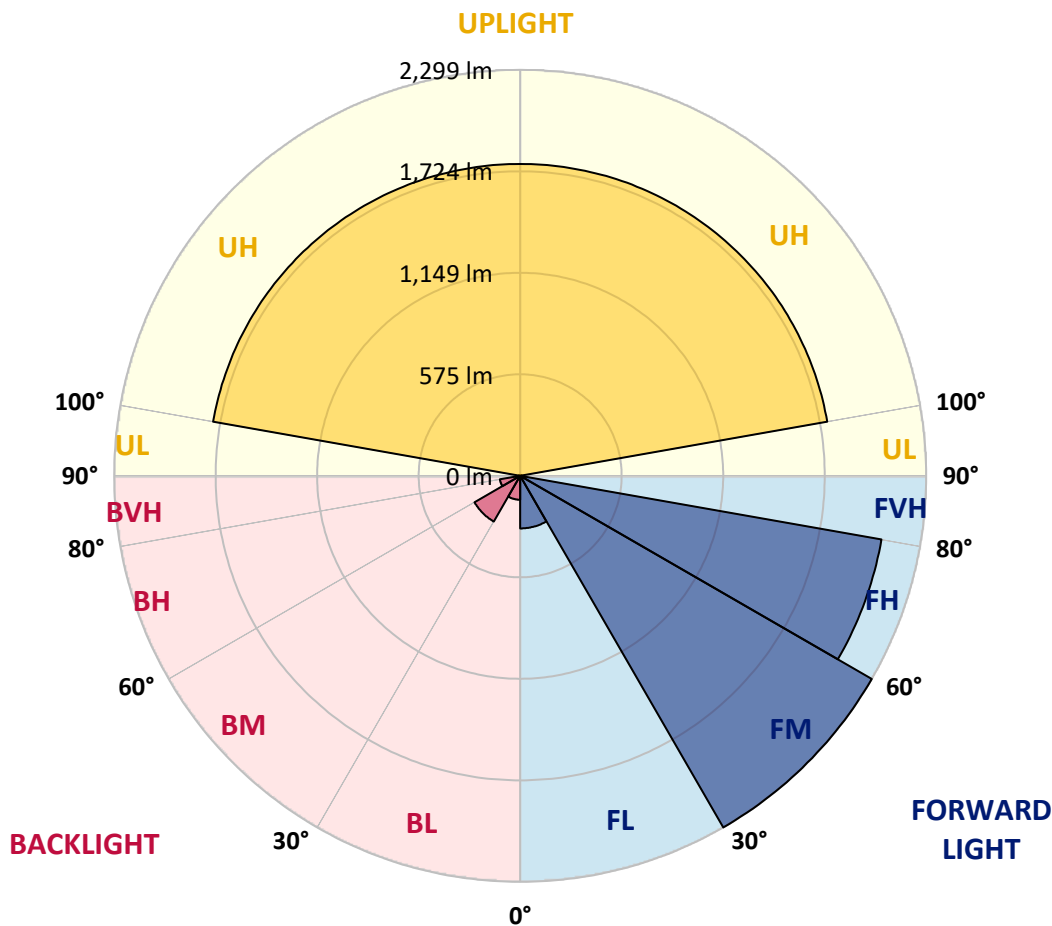


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	298.0	4.2			
FM (30°-60°)	2298.6	32.7			
FH (60°-80°)	2077.0	29.6			G2/5000
FVH (80°-90°)	18.9	0.3			G1/100
BL (0°-30°)	135.6	1.9	B1/500		
BM (30°-60°)	298.7	4.3	B1/1000		
BH (60°-80°)	116.7	1.7	B1/500		G1/500
BVH (80°-90°)	2.5	0.0			G0/10
UL (90°-100°)	8.4	0.1		U1/10	
UH (100°-180°)	1765.5	25.1		U5	

BUG Rating: B1-U5-G2
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0
2.5°	513.0	515.0	512.0	508.0	504.0	497.0	498.0	489.0	482.0	477.0	469.0
5°	578.0	577.0	571.0	562.0	553.0	540.0	538.0	524.0	509.0	493.0	478.0
7.5°	644.0	641.0	635.0	623.0	606.0	589.0	584.0	564.0	542.0	518.0	492.0
10°	698.0	696.0	689.0	676.0	656.0	630.0	630.0	602.0	573.0	544.0	513.0
12.5°	742.0	740.0	732.0	716.0	692.0	669.0	666.0	641.0	609.0	575.0	537.0
15°	769.0	767.0	758.0	740.0	719.0	698.0	695.0	671.0	642.0	603.0	559.0
17.5°	776.0	774.0	767.0	751.0	735.0	717.0	713.0	692.0	667.0	627.0	582.0
20°	773.0	769.0	765.0	752.0	739.0	727.0	725.0	710.0	688.0	654.0	606.0
22.5°	765.0	761.0	758.0	749.0	742.0	741.0	739.0	730.0	716.0	687.0	642.0
25°	762.0	759.0	756.0	750.0	749.0	759.0	758.0	757.0	751.0	726.0	679.0
27.5°	779.0	778.0	771.0	761.0	766.0	783.0	784.0	789.0	785.0	769.0	733.0
30°	839.0	834.0	818.0	796.0	809.0	831.0	835.0	851.0	852.0	854.0	805.0
32.5°	920.0	912.0	885.0	857.0	865.0	906.0	907.0	932.0	985.0	952.0	844.0
35°	976.0	966.0	925.0	910.0	950.0	1015.0	1024.0	1075.0	1079.0	959.0	841.0
37.5°	1133.0	1118.0	1043.0	952.0	991.0	1131.0	1141.0	1132.0	1048.0	949.0	884.0
40°	1343.0	1329.0	1262.0	1109.0	999.0	1020.0	1025.0	1052.0	1068.0	1019.0	1022.0
42.5°	1616.0	1598.0	1529.0	1342.0	1124.0	1047.0	1057.0	1112.0	1217.0	1240.0	1358.0
45°	1895.0	1885.0	1815.0	1613.0	1352.0	1231.0	1236.0	1303.0	1491.0	1636.0	1736.0
47.5°	2168.0	2170.0	2110.0	1939.0	1684.0	1550.0	1544.0	1631.0	1869.0	1972.0	2074.0
50°	2553.0	2551.0	2444.0	2338.0	2139.0	1980.0	1970.0	2019.0	2248.0	2286.0	2444.0
52.5°	2990.9	2988.9	2827.9	2777.9	2693.9	2438.0	2465.0	2423.0	2587.9	2655.9	2879.9
55°	3198.9	3180.9	3112.9	3175.9	3275.9	3018.9	3014.9	2854.9	2983.9	3041.9	3250.9
57.5°	3177.9	3184.9	3249.9	3458.9	3786.9	3571.9	3577.9	3280.9	3355.9	3391.9	3544.9
60°	3058.9	3063.9	3214.9	3562.9	4041.9	4004.9	3983.9	3678.9	3629.9	3614.9	3687.9
62.5°	2718.9	2720.9	2965.9	3412.9	4039.9	4254.9	4234.9	3958.9	3805.9	3709.9	3576.9
64°	2349.0	2387.0	2686.9	3191.9	3930.9	4298.9	4287.9	4026.9	3821.9	3645.9	3372.9
65°	2045.0	2102.0	2465.0	2995.9	3807.9	4283.9	4270.9	4014.9	3799.9	3525.9	3161.9
67.5°	1395.0	1425.0	1751.0	2358.0	3338.9	4072.9	4068.9	3860.9	3560.9	3045.9	2481.0
70°	823.0	845.0	1086.0	1646.0	2565.9	3498.9	3551.9	3476.9	2955.9	2188.0	1580.0
72.5°	256.0	269.0	479.0	914.0	1682.0	2725.9	2794.9	2740.9	2152.0	1367.0	876.0
75°	96.0	100.0	158.0	397.0	837.0	1743.0	1764.0	1827.0	1311.0	722.0	383.0
77.5°	53.0	54.0	78.0	149.0	368.0	856.0	876.0	868.0	697.0	341.0	122.0
80°	26.0	27.0	38.0	66.0	143.0	242.0	287.0	379.0	246.0	168.0	39.0
82.5°	9.0	8.0	17.0	30.0	48.0	65.0	73.0	105.0	103.0	92.0	14.0
85°	0.0	0.0	1.0	1.0	1.0	2.0	2.0	13.0	26.0	30.0	4.0
87.5°	0.0	0.0	0.0	1.0	1.0	1.0	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
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	6.2	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.2	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	9.5	12.3	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	22.3	29.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	41.9	51.1	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	65.3	73.7	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	90.7	97.2	96.2	92.1	89.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	117.2	122.8	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	146.8	151.4	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	178.5	183.1	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	210.3	215.8	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	248.9	251.6	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	283.6	285.4	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	317.4	320.2	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	348.3	352.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	381.0	385.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	414.9	420.4	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	447.6	453.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	479.2	483.9	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	508.7	511.5	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	537.2	539.1	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	564.1	568.8	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	588.7	593.3	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	607.0	610.7	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	624.1	625.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	642.2	640.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	659.7	658.8	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	670.3	673.1	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	678.6	682.3	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	688.3	687.4	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	700.0	693.6	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	706.4	701.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	705.7	704.8	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	705.8	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	710.9	709.9	715.0	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0	465.0
2.5°	465.0	463.0	456.0	449.0	444.0	438.0	437.0	433.0	432.0	432.0	432.0
5°	470.0	464.0	451.0	440.0	430.0	421.0	417.0	413.0	410.0	409.0	409.0
7.5°	481.0	472.0	451.0	435.0	420.0	409.0	403.0	399.0	396.0	396.0	396.0
10°	497.0	483.0	457.0	435.0	417.0	403.0	394.0	388.0	384.0	383.0	384.0
12.5°	517.0	499.0	467.0	440.0	419.0	401.0	382.0	347.0	324.0	311.0	309.0
15°	536.0	515.0	478.0	447.0	422.0	382.0	313.0	259.0	223.0	212.0	210.0
17.5°	557.0	535.0	493.0	457.0	411.0	308.0	223.0	178.0	171.0	173.0	173.0
20°	583.0	557.0	509.0	467.0	354.0	219.0	163.0	157.0	159.0	163.0	163.0
22.5°	613.0	585.0	531.0	461.0	270.0	160.0	149.0	150.0	152.0	156.0	156.0
25°	652.0	623.0	555.0	416.0	188.0	140.0	141.0	142.0	145.0	149.0	150.0
27.5°	710.0	675.0	584.0	349.0	142.0	130.0	131.0	134.0	137.0	142.0	142.0
30°	772.0	729.0	610.0	269.0	124.0	119.0	120.0	123.0	128.0	132.0	134.0
32.5°	799.0	761.0	615.0	184.0	115.0	110.0	108.0	111.0	115.0	119.0	120.0
35°	814.0	798.0	591.0	133.0	108.0	102.0	98.0	97.0	98.0	101.0	101.0
37.5°	888.0	877.0	543.0	114.0	101.0	95.0	89.0	84.0	82.0	81.0	82.0
40°	1030.0	1006.0	480.0	105.0	95.0	88.0	80.0	72.0	65.0	62.0	62.0
42.5°	1343.0	1222.0	390.0	99.0	89.0	81.0	69.0	58.0	50.0	48.0	48.0
45°	1680.0	1490.0	293.0	94.0	83.0	73.0	58.0	46.0	39.0	37.0	37.0
47.5°	2004.0	1688.0	205.0	88.0	76.0	64.0	48.0	37.0	32.0	31.0	31.0
50°	2344.0	1860.0	143.0	81.0	69.0	55.0	39.0	30.0	27.0	27.0	27.0
52.5°	2674.9	1987.0	105.0	74.0	60.0	46.0	33.0	27.0	25.0	25.0	25.0
55°	2924.9	2036.0	80.0	65.0	51.0	39.0	30.0	26.0	24.0	23.0	23.0
57.5°	3091.9	1995.0	65.0	54.0	43.0	34.0	27.0	24.0	22.0	21.0	21.0
60°	3087.9	1859.0	52.0	44.0	35.0	29.0	25.0	22.0	20.0	19.0	19.0
62.5°	2906.9	1638.0	41.0	35.0	29.0	25.0	22.0	20.0	18.0	17.0	16.0
64°	2729.9	1501.0	35.0	30.0	26.0	23.0	20.0	18.0	16.0	14.0	14.0
65°	2538.0	1371.0	32.0	27.0	23.0	21.0	19.0	17.0	14.0	12.0	12.0
67.5°	1930.0	1015.0	26.0	21.0	18.0	17.0	15.0	13.0	10.0	8.0	8.0
70°	1253.0	657.0	22.0	17.0	15.0	15.0	14.0	11.0	8.0	7.0	6.0
72.5°	642.0	327.0	18.0	14.0	13.0	13.0	12.0	9.0	7.0	6.0	5.0
75°	272.0	133.0	15.0	12.0	11.0	10.0	9.0	8.0	6.0	5.0	5.0
77.5°	95.0	50.0	14.0	12.0	9.0	8.0	8.0	8.0	8.0	7.0	6.0
80°	32.0	19.0	9.0	9.0	10.0	11.0	11.0	10.0	11.0	9.0	7.0
82.5°	13.0	7.0	3.0	4.0	7.0	8.0	9.0	9.0	9.0	7.0	6.0
85°	3.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	3.0	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9



REPORT NUMBER:

CATALOG NUMBER: ENT-SA1E-740-U-T4W-HSS-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)