

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-T3-HSS-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P401690 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-T3-HSS-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7178.9 lumens
Efficiency: N/A
Efficacy: 97.1 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 - G1

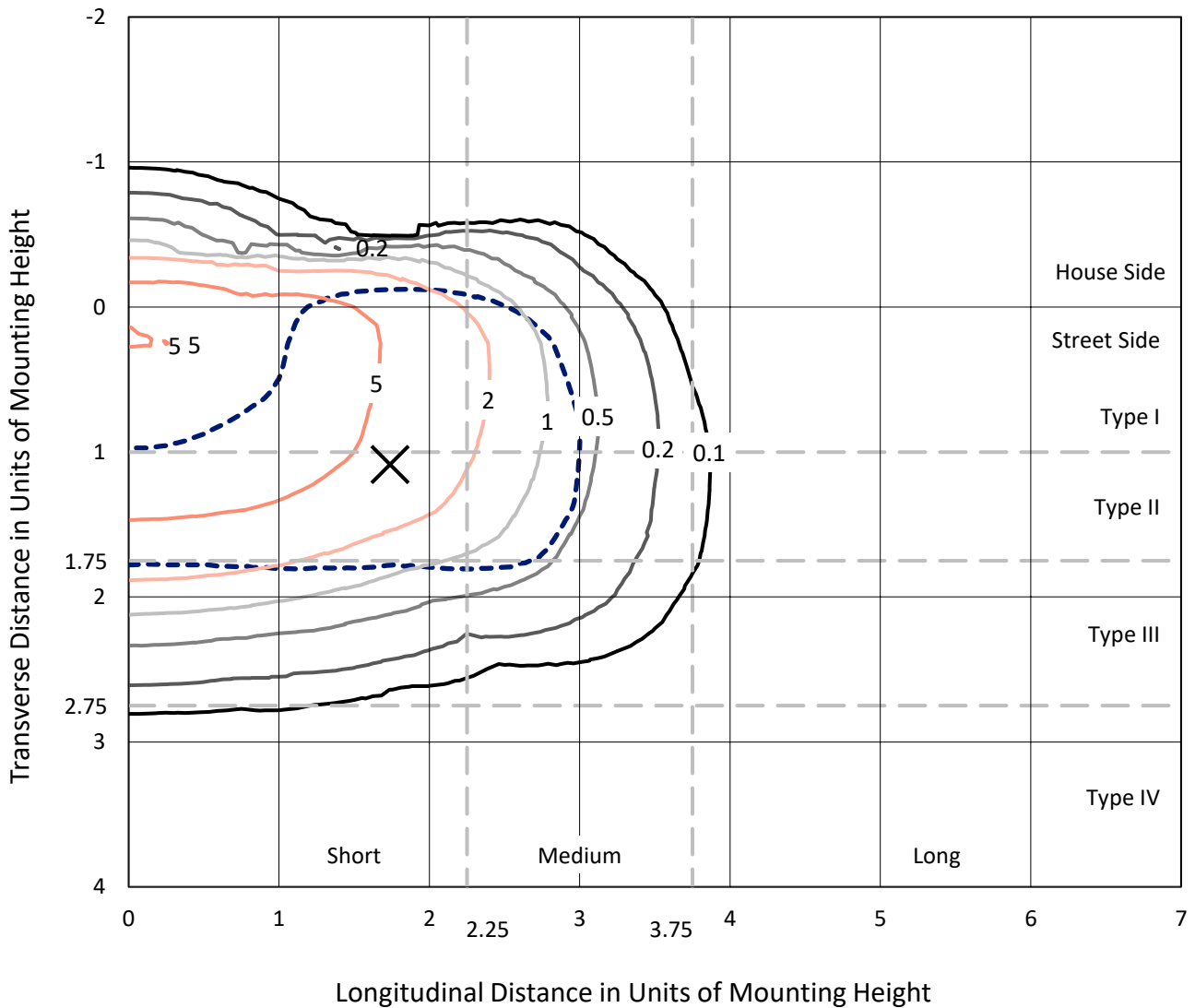
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1E-740-U-T3-HSS-ULG

Iso-Footcandle Lines of Horizontal Illumination

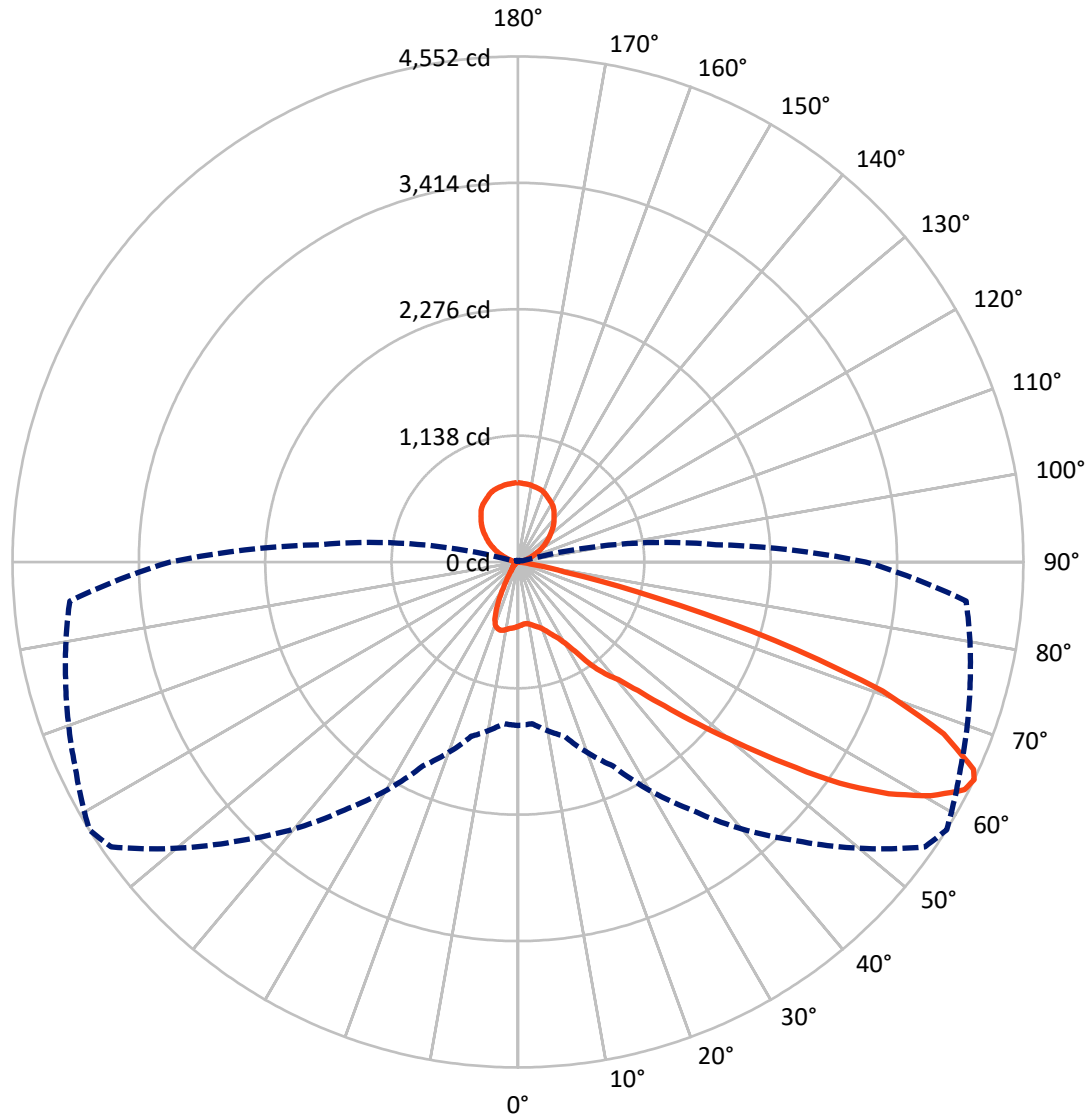
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.6 fc
 Type III - Short - N/A

REPORT NUMBER:
CATALOG NUMBER: ENT-SA1E-740-U-T3-HSS-ULG

Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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 CATALOG NUMBER: ENT-SA1E-740-U-T3-HSS-ULG

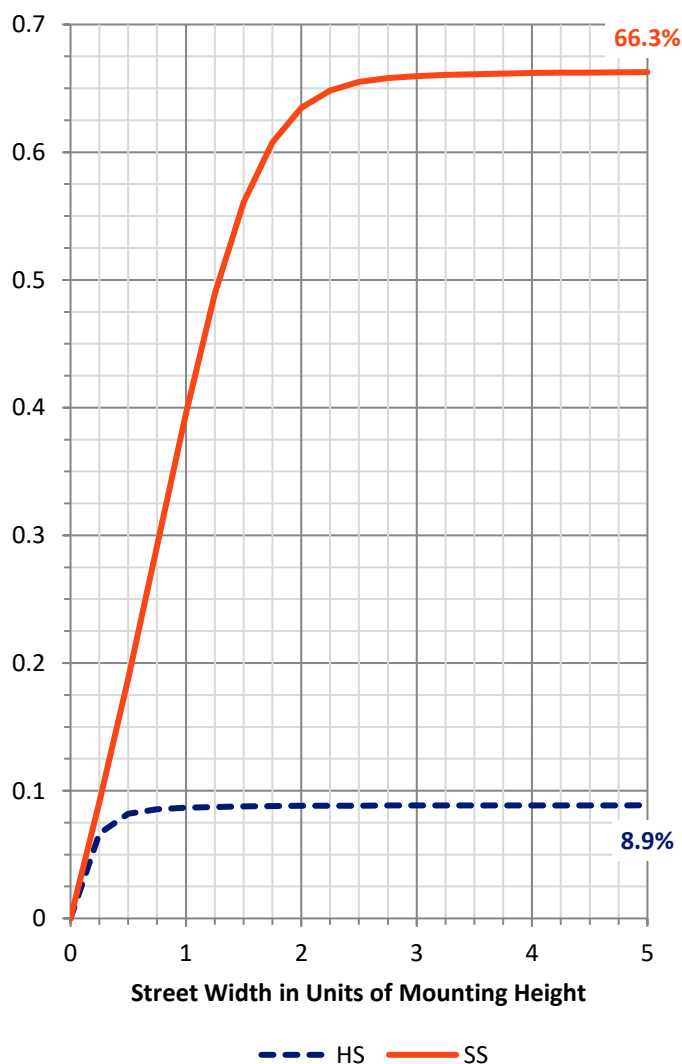
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	644.4	887.0	1531.4
	% Fixture	9.0	12.4	21.3
Street Side	Lumens	4760.6	887.0	5647.6
	% Fixture	66.3	12.4	78.7
Total	Lumens	5405.0	1773.9	7178.9
	% Fixture	75.3	24.7	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.7	0.8
10°-20°	159.5	2.2
20°-30°	286.6	4.0
30°-40°	502.3	7.0
40°-50°	918.4	12.8
50°-60°	1571.1	21.9
60°-70°	1524.1	21.2
70°-80°	377.5	5.3
80°-90°	10.7	0.1
90°-100°	8.4	0.1
100°-110°	58.7	0.8
110°-120°	169.9	2.4
120°-130°	279.4	3.9
130°-140°	344.6	4.8
140°-150°	352.5	4.9
150°-160°	297.0	4.1
160°-170°	195.5	2.7
170°-180°	67.8	0.9
0°-90°	5405.0	75.3
0°-180°	7178.9	100.0

Coefficient of Utilization

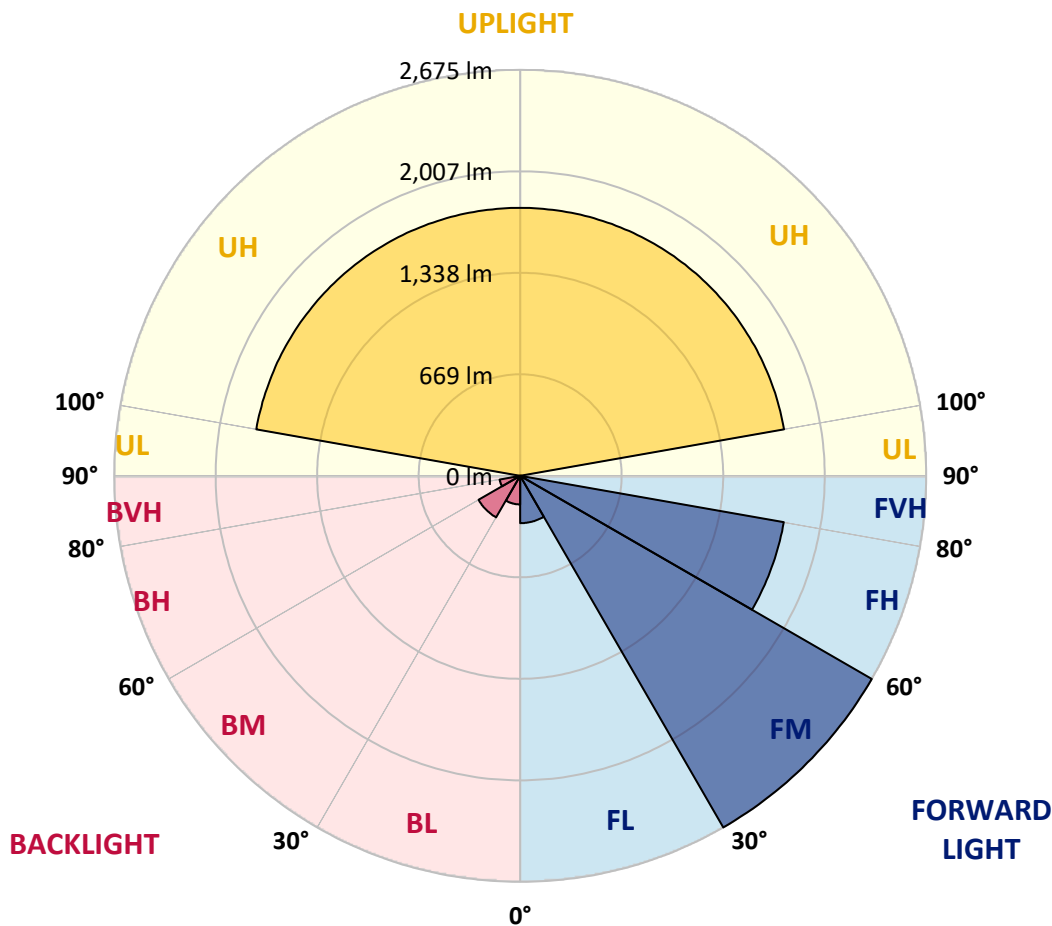


REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1E-740-U-T3-HSS-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	312.1	4.3			
FM (30°-60°)	2675.4	37.3			
FH (60°-80°)	1764.0	24.6			G1/1800
FVH (80°-90°)	9.1	0.1			G0/10
BL (0°-30°)	188.7	2.6	B1/500		
BM (30°-60°)	316.5	4.4	B1/1000		
BH (60°-80°)	137.6	1.9	B1/500		G1/500
BVH (80°-90°)	1.6	0.0			G0/10
UL (90°-100°)	8.4	0.1		U1/10	
UH (100°-180°)	1765.5	24.6		U5	

BUG Rating: B1-U5-G1
 Type III Short





REPORT NUMBER:

CATALOG NUMBER: ENT-SA1E-740-U-T3-HSS-ULG

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
2.5°	555.0	555.0	557.0	558.0	561.0	564.0	568.0	569.0	571.0	576.0	578.0
5°	525.0	526.0	528.0	533.0	540.0	548.0	558.0	561.0	569.0	579.0	586.0
7.5°	513.0	514.0	517.0	523.0	532.0	544.0	556.0	560.0	571.0	587.0	597.0
10°	511.0	511.0	515.0	524.0	535.0	550.0	563.0	568.0	583.0	602.0	618.0
12.5°	511.0	511.0	516.0	527.0	540.0	559.0	577.0	584.0	601.0	625.0	645.0
15°	520.0	522.0	525.0	532.0	547.0	568.0	593.0	601.0	622.0	651.0	676.0
17.5°	584.0	582.0	572.0	563.0	560.0	578.0	608.0	619.0	650.0	687.0	714.0
20°	708.0	707.0	689.0	645.0	606.0	596.0	631.0	644.0	689.0	738.0	758.0
22.5°	857.9	862.9	834.9	776.0	696.0	645.0	665.0	683.0	741.0	800.0	812.0
25°	1006.9	1012.9	986.9	912.9	815.0	726.0	712.0	728.0	794.0	852.9	847.9
27.5°	1182.9	1177.9	1151.9	1067.9	953.9	834.9	775.0	778.0	828.9	894.9	878.9
30°	1311.9	1304.9	1279.9	1222.9	1115.9	979.9	864.9	855.9	870.9	943.9	926.9
32.5°	1429.9	1434.9	1415.9	1339.9	1238.9	1128.9	999.9	975.9	969.9	1031.9	1003.9
35°	1546.9	1545.9	1538.9	1471.9	1372.9	1268.9	1160.9	1143.9	1141.9	1201.9	1125.9
37.5°	1686.9	1679.9	1666.9	1598.9	1519.9	1420.9	1305.9	1278.9	1273.9	1285.9	1196.9
40°	1836.9	1845.9	1824.9	1753.9	1667.9	1593.9	1432.9	1391.9	1357.9	1392.9	1335.9
42.5°	2059.9	2066.9	2029.9	1980.9	1869.9	1800.9	1637.9	1581.9	1565.9	1618.9	1554.9
45°	2339.9	2326.9	2301.9	2267.9	2175.9	2070.9	1900.9	1847.9	1830.9	1921.9	1816.9
47.5°	2557.8	2555.8	2556.8	2549.8	2535.8	2409.9	2207.9	2171.9	2154.9	2285.9	2169.9
50°	2695.8	2703.8	2737.8	2824.8	2888.8	2835.8	2598.8	2554.8	2541.8	2677.8	2520.8
52.5°	2799.8	2818.8	2875.8	3047.8	3252.8	3270.8	3074.8	3012.8	2982.8	3020.8	2802.8
55°	2852.8	2861.8	2948.8	3202.8	3523.8	3652.8	3570.8	3518.8	3397.8	3325.8	3133.8
57.5°	2728.8	2714.8	2864.8	3187.8	3663.8	3960.8	3995.8	3936.8	3742.8	3686.8	3535.8
60°	2403.9	2397.9	2566.8	2954.8	3541.8	4032.8	4310.7	4273.7	4095.8	3962.8	3820.8
62.5°	1833.9	1843.9	2022.9	2417.9	3106.8	3825.8	4485.7	4515.7	4326.7	4128.8	4031.8
64°	1472.9	1460.9	1624.9	2026.9	2725.8	3549.8	4472.7	4551.7	4396.7	4215.7	4050.8
65°	1236.9	1210.9	1367.9	1731.9	2403.9	3349.8	4380.7	4507.7	4401.7	4236.7	3981.8
67.5°	651.0	665.0	732.0	1051.9	1622.9	2532.8	3944.8	4136.7	4179.7	3949.8	3469.8
70°	292.0	294.0	337.0	537.0	897.9	1642.9	3172.8	3483.8	3507.8	3244.8	2513.8
72.5°	97.0	98.0	149.0	215.0	377.0	761.0	2142.9	2425.9	2477.9	2103.9	1363.9
75°	60.0	62.0	79.0	116.0	175.0	266.0	1085.9	1277.9	1288.9	932.9	496.0
77.5°	38.0	40.0	48.0	69.0	96.0	101.0	356.0	431.0	488.0	336.0	154.0
80°	24.0	24.0	31.0	42.0	50.0	43.0	97.0	128.0	154.0	113.0	52.0
82.5°	9.0	9.0	16.0	23.0	21.0	15.0	26.0	34.0	59.0	56.0	25.0
85°	0.0	0.0	1.0	2.0	1.0	2.0	5.0	7.0	11.0	16.0	8.0
87.5°	0.0	0.0	0.0	0.0	1.0	1.0	2.0	2.0	2.0	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	7.2	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.5	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.7	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	28.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	50.2	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	73.0	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.9	96.2	92.1	89.0



REPORT NUMBER:

CATALOG NUMBER: ENT-SA1E-740-U-T3-HSS-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.1	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	152.0	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	184.0	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	217.1	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	252.9	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	286.6	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	320.8	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.2	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	386.9	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	422.0	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	454.7	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.5	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	512.1	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	541.0	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	570.6	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	594.9	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	611.6	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	626.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	641.9	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	660.0	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	675.0	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	683.6	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	689.0	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	695.4	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	702.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	705.7	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	707.4	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	711.5	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



REPORT NUMBER:

CATALOG NUMBER: ENT-SA1E-740-U-T3-HSS-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0	579.0
2.5°	581.0	583.0	587.0	588.0	589.0	586.0	589.0	586.0	588.0	588.0	588.0
5°	590.0	593.0	596.0	597.0	596.0	589.0	591.0	586.0	585.0	585.0	585.0
7.5°	602.0	605.0	610.0	607.0	601.0	591.0	590.0	583.0	580.0	580.0	581.0
10°	624.0	627.0	629.0	623.0	611.0	596.0	585.0	570.0	563.0	560.0	560.0
12.5°	652.0	655.0	654.0	644.0	622.0	591.0	560.0	531.0	510.0	502.0	494.0
15°	682.0	686.0	684.0	663.0	621.0	566.0	506.0	438.0	396.0	369.0	364.0
17.5°	717.0	721.0	711.0	673.0	606.0	513.0	399.0	307.0	246.0	223.0	222.0
20°	760.0	758.0	734.0	674.0	579.0	415.0	267.0	192.0	166.0	160.0	159.0
22.5°	809.0	800.0	756.0	668.0	505.0	282.0	172.0	152.0	149.0	147.0	147.0
25°	836.9	821.0	764.0	651.0	389.0	180.0	146.0	142.0	138.0	134.0	133.0
27.5°	858.9	834.9	767.0	595.0	259.0	138.0	132.0	128.0	122.0	116.0	115.0
30°	898.9	862.9	772.0	497.0	159.0	118.0	115.0	108.0	99.0	93.0	91.0
32.5°	970.9	918.9	792.0	372.0	116.0	104.0	96.0	87.0	77.0	71.0	71.0
35°	1047.9	971.9	802.0	245.0	101.0	91.0	79.0	68.0	59.0	54.0	53.0
37.5°	1118.9	1047.9	799.0	150.0	90.0	78.0	65.0	54.0	46.0	42.0	42.0
40°	1263.9	1180.9	758.0	103.0	79.0	66.0	53.0	42.0	37.0	34.0	34.0
42.5°	1470.9	1326.9	667.0	88.0	69.0	55.0	42.0	35.0	31.0	28.0	28.0
45°	1702.9	1487.9	532.0	79.0	60.0	46.0	35.0	29.0	25.0	24.0	24.0
47.5°	2006.9	1682.9	391.0	71.0	52.0	39.0	29.0	24.0	22.0	21.0	21.0
50°	2272.9	1840.9	267.0	62.0	46.0	33.0	25.0	22.0	20.0	19.0	19.0
52.5°	2514.8	1950.9	176.0	54.0	41.0	27.0	23.0	20.0	19.0	18.0	18.0
55°	2799.8	2034.9	119.0	47.0	36.0	25.0	22.0	20.0	18.0	18.0	17.0
57.5°	3041.8	2084.9	85.0	40.0	32.0	23.0	21.0	19.0	17.0	16.0	16.0
60°	3182.8	2025.9	62.0	35.0	28.0	21.0	19.0	17.0	16.0	15.0	15.0
62.5°	3221.8	1911.9	48.0	30.0	24.0	19.0	17.0	15.0	14.0	13.0	13.0
64°	3131.8	1789.9	41.0	26.0	21.0	17.0	16.0	14.0	12.0	10.0	10.0
65°	3004.8	1676.9	37.0	24.0	19.0	16.0	15.0	13.0	10.0	8.0	8.0
67.5°	2503.8	1336.9	30.0	20.0	15.0	14.0	12.0	10.0	7.0	5.0	5.0
70°	1777.9	934.9	23.0	16.0	13.0	13.0	11.0	8.0	4.0	2.0	2.0
72.5°	940.9	486.0	19.0	13.0	10.0	10.0	9.0	5.0	3.0	2.0	1.0
75°	329.0	160.0	16.0	11.0	9.0	7.0	6.0	4.0	3.0	2.0	1.0
77.5°	100.0	53.0	14.0	11.0	8.0	6.0	7.0	6.0	6.0	4.0	3.0
80°	32.0	19.0	8.0	7.0	8.0	8.0	7.0	6.0	7.0	5.0	4.0
82.5°	12.0	7.0	3.0	4.0	4.0	5.0	5.0	4.0	3.0	1.0	0.0
85°	4.0	3.0	2.0	3.0	3.0	3.0	2.0	2.0	1.0	0.0	0.0
87.5°	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	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
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-T3-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)