

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-SA1B-740-U-SL4-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number:
REPORT IS A COMBINATION OF REPORTS P401136 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1B-740-U-SL4-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5023.9 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type IV - Short
BUG Rating: B1 - U5 - G1

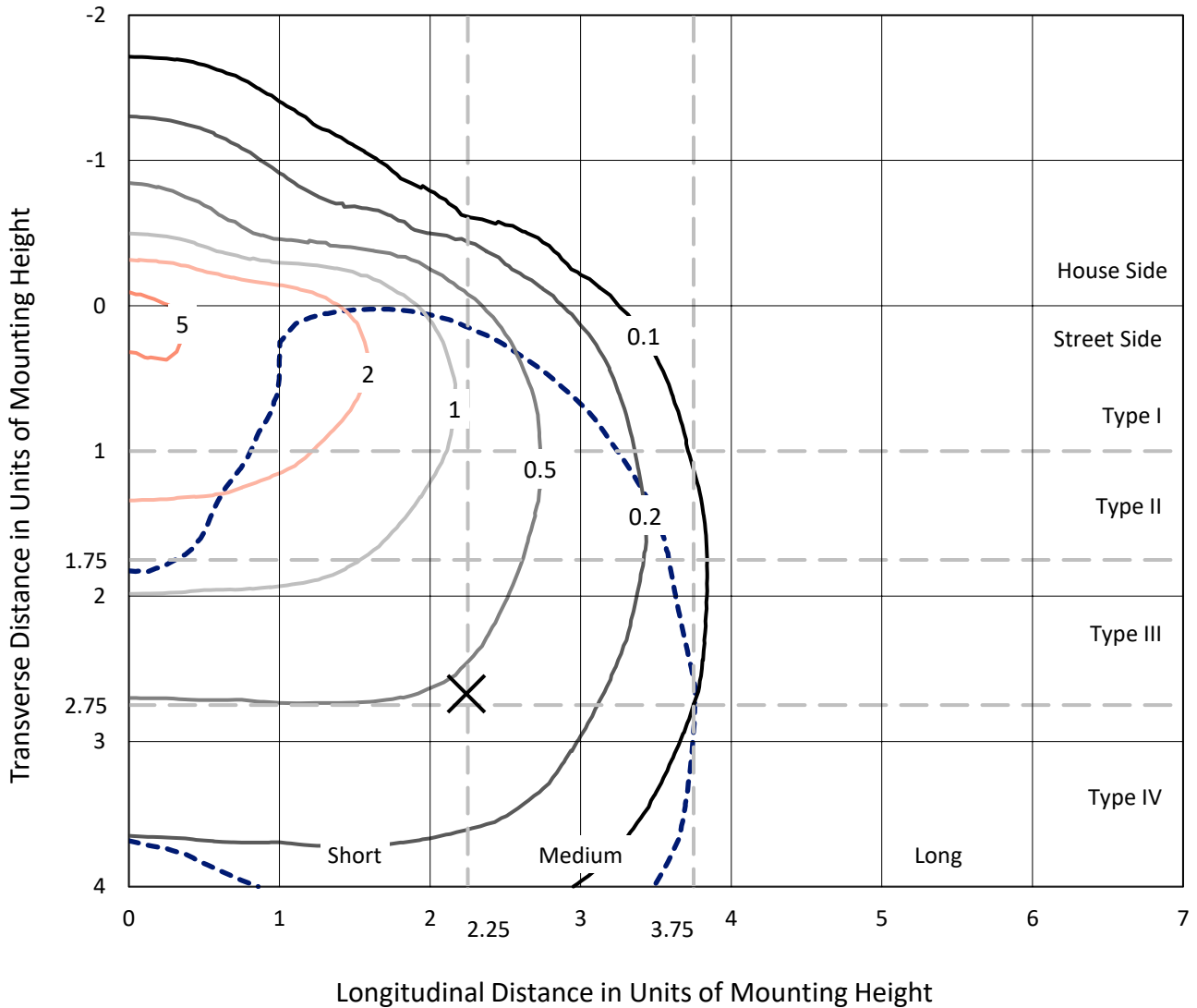
Input Watts (W): 42.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1B-740-U-SL4-ULG

Iso-Footcandle Lines of Horizontal Illumination

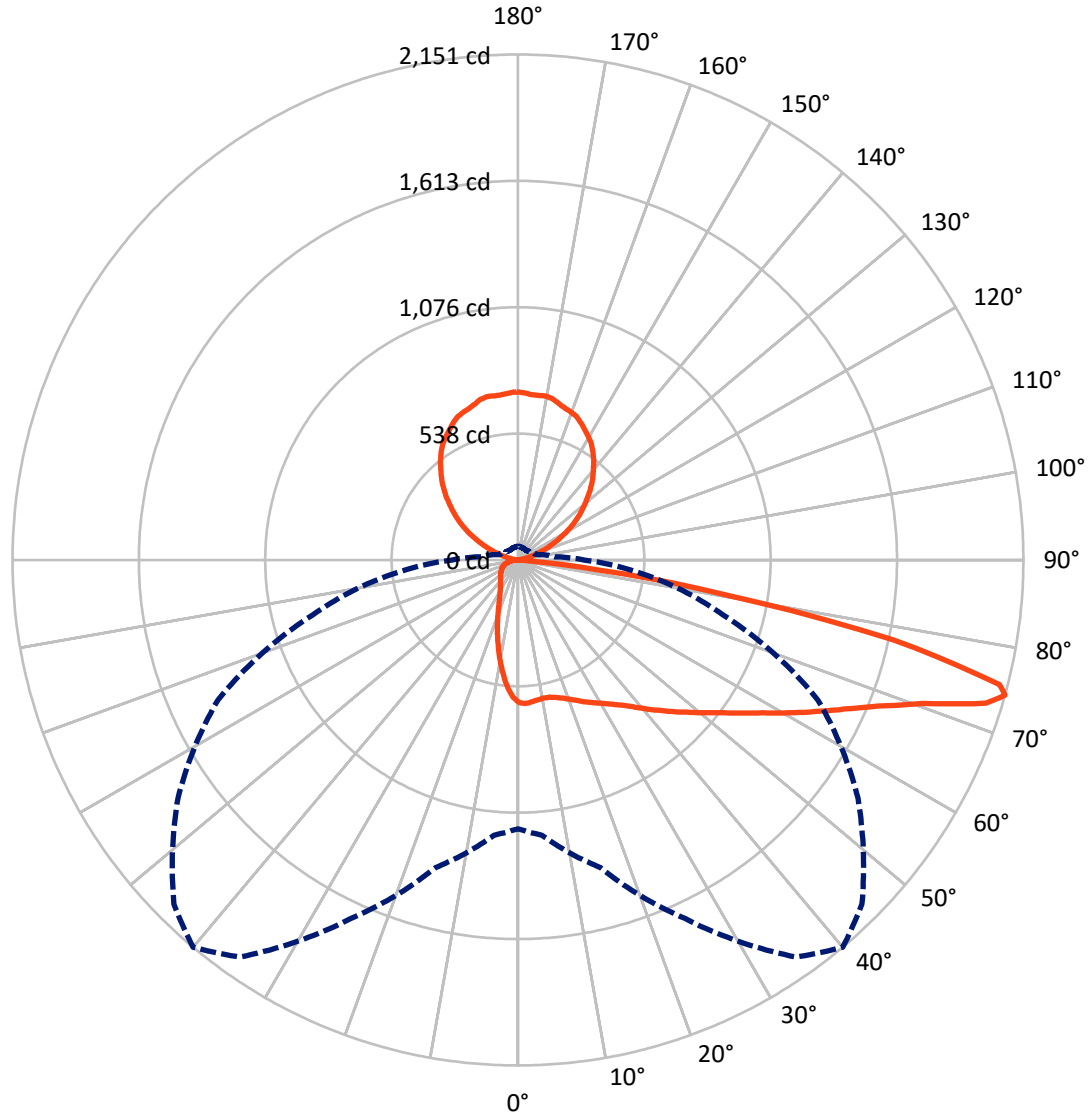
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - N/A

REPORT NUMBER:
CATALOG NUMBER: ENT-SA1B-740-U-SL4-ULG

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1B-740-U-SL4-ULG

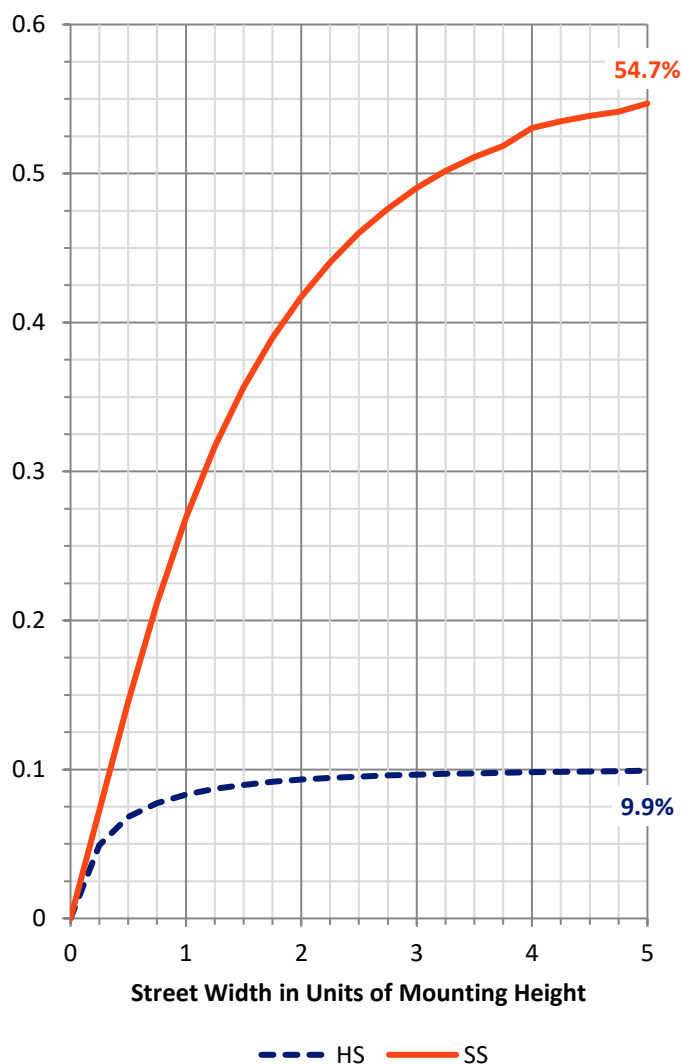
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	506.7	887.0	1393.7
	% Fixture	10.1	17.7	27.7
Street Side	Lumens	2743.3	887.0	3630.2
	% Fixture	54.6	17.7	72.3
Total	Lumens	3250.0	1773.9	5023.9
	% Fixture	64.7	35.3	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.6	1.1
10°-20°	137.9	2.7
20°-30°	211.5	4.2
30°-40°	305.5	6.1
40°-50°	439.5	8.7
50°-60°	606.9	12.1
60°-70°	765.1	15.2
70°-80°	663.5	13.2
80°-90°	66.4	1.3
90°-100°	8.4	0.2
100°-110°	58.7	1.2
110°-120°	169.9	3.4
120°-130°	279.4	5.6
130°-140°	344.6	6.9
140°-150°	352.5	7.0
150°-160°	297.0	5.9
160°-170°	195.5	3.9
170°-180°	67.8	1.3
0°-90°	3250.0	64.7
0°-180°	5023.9	100.0

Coefficient of Utilization

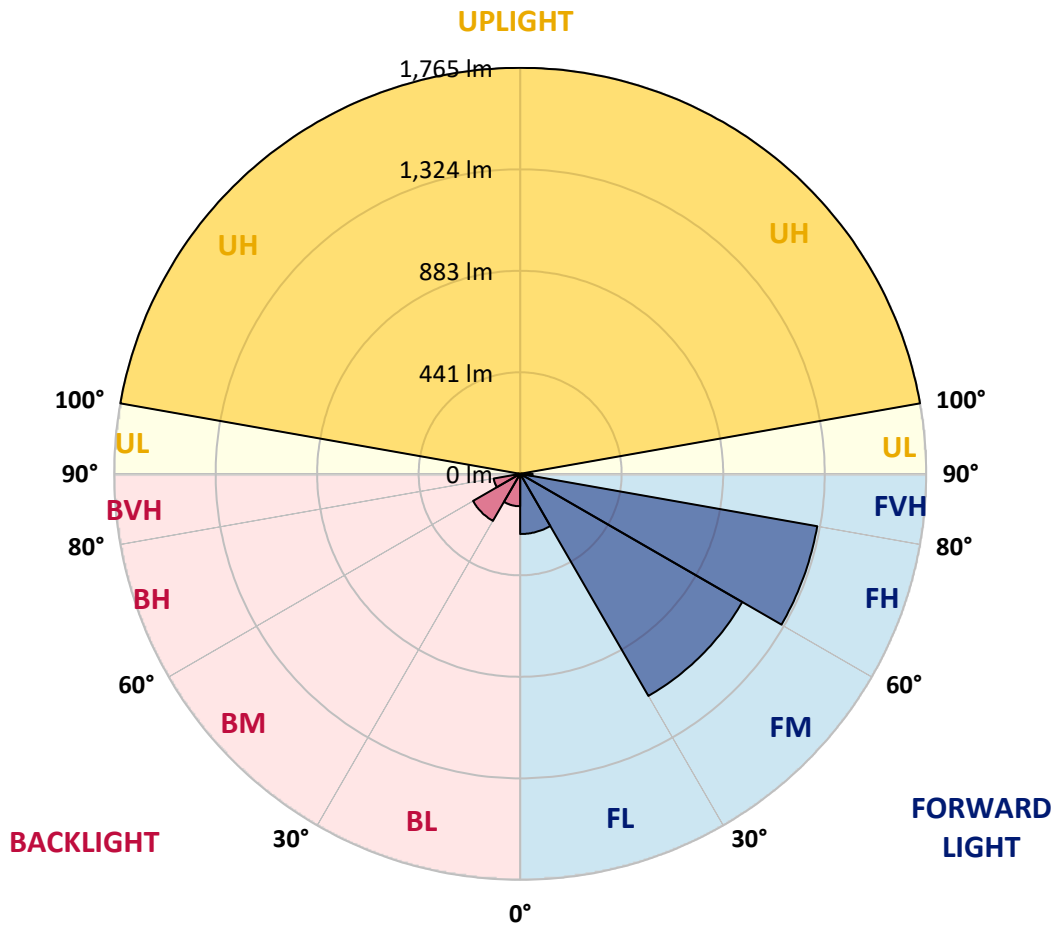


REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1B-740-U-SL4-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	262.0	5.2			
FM (30°-60°)	1115.3	22.2			
FH (60°-80°)	1311.7	26.1			G1/1800
FVH (80°-90°)	54.3	1.1			G1/100
BL (0°-30°)	141.0	2.8	B1/500		
BM (30°-60°)	236.6	4.7	B1/1000		
BH (60°-80°)	117.0	2.3	B1/500		G1/500
BVH (80°-90°)	12.1	0.2			G1/100
UL (90°-100°)	8.4	0.2		U1/10	
UH (100°-180°)	1765.5	35.1		U5	

BUG Rating: B1-U5-G1
 Type IV Short





REPORT NUMBER:

CATALOG NUMBER: ENT-SA1B-740-U-SL4-ULG

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	606.7	606.7	606.7	606.7	606.7	606.7	606.7	606.7	606.7	606.7	606.7
2.5°	614.5	614.0	615.4	614.5	613.0	612.0	611.5	608.6	607.6	604.7	600.8
5°	612.0	612.0	612.0	611.0	608.1	607.1	606.2	601.8	598.9	594.0	586.7
7.5°	603.7	605.2	604.7	604.2	601.8	600.8	599.3	594.0	590.1	582.8	573.5
10°	595.9	595.9	596.4	598.4	597.4	597.9	597.4	591.5	586.2	576.9	565.2
12.5°	584.7	586.7	589.6	595.0	597.4	599.3	599.3	595.0	589.1	577.9	564.3
15°	577.9	580.3	587.7	597.4	603.2	606.7	607.6	602.3	595.0	583.8	568.6
17.5°	575.0	577.9	591.5	605.2	615.4	618.3	618.8	613.0	605.2	591.5	574.0
20°	577.9	581.3	599.3	617.9	630.0	632.5	633.5	625.2	615.4	602.3	579.4
22.5°	589.1	594.0	614.0	633.9	646.6	650.0	649.0	637.4	627.6	613.5	586.2
25°	613.5	616.4	634.4	655.9	665.6	669.5	667.1	653.9	641.3	627.1	595.9
27.5°	641.7	645.6	664.6	680.7	687.1	688.0	685.6	671.9	657.8	646.1	611.0
30°	675.8	679.3	694.9	707.0	707.5	708.0	706.5	691.0	679.3	670.0	633.0
32.5°	711.9	712.4	728.5	734.3	730.4	731.9	730.4	713.4	705.1	702.2	661.7
35°	745.0	745.5	762.1	764.0	757.7	758.2	761.1	741.1	741.1	748.0	704.6
37.5°	776.7	778.2	792.8	790.8	788.4	792.8	796.7	779.6	789.4	808.9	756.7
40°	800.6	804.0	823.5	822.5	827.9	832.3	835.7	826.9	842.5	880.5	821.1
42.5°	816.2	823.0	850.8	857.6	866.9	874.7	880.5	880.0	907.3	959.9	889.3
45°	832.3	839.1	876.1	892.7	908.3	920.5	931.7	937.5	980.9	1043.7	968.7
47.5°	851.8	857.6	899.0	931.7	951.6	968.2	988.2	1000.9	1055.9	1129.0	1042.3
50°	881.5	885.4	922.4	973.1	998.4	1021.3	1046.2	1072.0	1136.8	1216.2	1106.6
52.5°	920.0	922.4	949.7	1015.0	1055.4	1079.8	1116.8	1150.9	1219.2	1295.2	1159.2
55°	963.8	961.9	982.8	1065.2	1112.4	1149.0	1194.8	1229.4	1305.9	1363.9	1201.1
57.5°	1007.7	1006.2	1022.8	1113.4	1184.6	1227.4	1274.7	1311.3	1385.3	1428.2	1231.3
60°	1049.6	1044.2	1067.6	1169.9	1271.8	1321.0	1363.4	1397.0	1460.4	1474.5	1247.4
62.5°	1086.6	1086.6	1120.7	1239.6	1376.1	1420.4	1454.0	1476.4	1532.0	1508.6	1241.1
65°	1120.7	1125.1	1173.8	1317.6	1484.2	1529.5	1558.8	1567.6	1603.1	1510.1	1187.5
67.5°	1159.2	1166.0	1234.7	1408.7	1609.0	1657.2	1682.6	1679.6	1653.8	1487.6	1072.5
70°	1196.7	1207.9	1310.3	1526.1	1763.0	1828.2	1856.0	1798.5	1680.1	1363.4	890.7
72.5°	1224.0	1243.0	1372.2	1643.6	1983.7	2084.1	2072.9	1831.2	1556.8	1123.7	673.9
74°	1144.1	1175.8	1355.1	1684.0	2063.1	2151.3	2070.9	1766.4	1408.2	904.9	477.5
75°	1051.0	1081.7	1268.9	1667.9	2078.2	2117.7	1970.5	1652.3	1263.0	701.2	311.9
77.5°	778.2	802.1	974.5	1315.1	1643.6	1631.9	1467.2	1119.8	622.2	211.5	131.6
80°	343.5	361.6	480.9	661.7	890.2	886.8	825.9	514.6	200.8	110.6	80.4
82.5°	103.8	103.3	138.4	193.0	338.2	344.5	292.9	177.4	96.0	45.8	39.0
85°	0.5	0.5	0.5	0.5	1.5	12.7	10.7	34.1	17.5	8.3	14.1
87.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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°	4.1	4.1	5.1	6.1	6.1	6.1	6.1	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	9.2	12.3	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	16.9	21.5	29.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	34.2	40.9	51.1	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	56.8	64.4	73.7	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	82.4	90.0	97.2	96.2	92.1	89.0



REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1B-740-U-SL4-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	110.4	116.6	122.8	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	141.7	146.3	151.4	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	175.0	178.0	183.1	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	208.2	209.7	215.8	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	245.5	248.6	251.6	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	280.3	283.4	285.4	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	314.6	317.1	320.2	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.3	347.8	352.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	379.5	380.5	385.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	413.8	414.3	420.4	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	446.0	447.0	453.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	476.6	478.7	483.9	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	505.4	508.4	511.5	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	535.0	537.0	539.1	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.1	563.6	568.8	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	587.7	588.2	593.3	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	606.6	610.7	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	624.0	625.0	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	643.4	642.4	640.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	660.3	659.8	658.8	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	670.0	673.1	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	677.2	678.2	682.3	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	688.4	687.4	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	702.2	700.7	693.6	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	707.9	706.9	701.7	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	705.8	704.8	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	706.3	705.8	705.8	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	712.0	711.0	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



REPORT NUMBER:

CATALOG NUMBER: ENT-SA1B-740-U-SL4-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	606.7	606.7	606.7	606.7	606.7	606.7	606.7	606.7	606.7	606.7	606.7
2.5°	598.4	597.9	596.4	593.0	590.6	583.3	585.7	580.8	580.3	579.4	578.9
5°	583.3	581.3	575.5	568.6	560.9	548.7	544.8	537.5	533.1	531.6	532.6
7.5°	567.7	563.3	552.1	537.5	521.9	503.8	490.7	480.5	473.1	470.7	467.3
10°	557.9	550.6	531.6	507.3	481.9	456.6	434.6	419.5	408.3	399.6	399.6
12.5°	554.5	544.8	517.0	481.4	444.9	408.8	377.1	357.2	338.2	328.9	327.4
15°	556.5	542.8	504.8	458.0	409.3	362.5	323.5	294.8	276.8	265.6	269.5
17.5°	558.4	541.4	492.1	433.2	374.7	320.6	275.3	242.7	220.7	214.9	212.5
20°	560.9	538.4	476.1	406.4	339.1	280.2	232.4	199.3	182.7	175.4	175.4
22.5°	564.3	534.5	459.5	376.7	302.6	240.7	196.4	171.5	158.4	154.0	154.0
25°	569.1	532.1	442.4	346.9	268.0	209.5	172.5	153.0	146.2	143.3	142.8
27.5°	578.4	532.6	425.9	316.7	233.9	183.2	155.4	142.8	137.4	135.9	135.5
30°	592.5	537.5	408.3	284.6	203.7	163.2	143.7	135.0	131.6	130.6	130.6
32.5°	612.0	546.2	393.7	255.8	181.3	147.2	134.0	128.2	126.2	125.2	125.7
35°	642.2	561.3	376.2	229.5	160.3	135.9	126.2	121.8	120.4	120.4	120.8
37.5°	681.7	584.7	359.1	205.1	146.2	126.2	118.9	116.5	115.0	116.0	116.5
40°	731.4	612.5	343.0	183.2	134.5	118.4	112.6	110.6	110.1	111.1	112.1
42.5°	785.0	646.1	328.4	165.2	125.2	112.1	107.2	106.2	105.7	106.2	107.7
45°	847.4	684.6	316.2	151.5	118.4	106.7	102.3	101.4	100.9	101.8	102.8
47.5°	904.9	719.2	306.5	142.3	112.6	102.8	98.4	97.0	97.0	97.0	97.9
50°	951.6	746.5	300.6	135.9	107.7	98.4	94.5	93.1	92.6	92.1	92.6
52.5°	992.1	767.0	298.7	132.1	103.8	94.5	90.6	89.7	88.7	87.7	88.2
55°	1018.9	777.2	294.8	128.6	100.4	90.1	86.7	85.8	84.8	83.3	83.3
57.5°	1034.5	776.2	286.0	126.7	98.4	86.2	82.8	82.8	81.9	79.4	79.9
60°	1035.9	759.2	264.6	124.3	97.0	82.3	78.5	79.4	79.4	77.5	77.5
62.5°	1011.1	714.3	223.2	117.9	95.0	79.4	75.0	77.5	78.5	76.5	76.5
65°	934.6	608.6	179.3	108.7	90.1	76.0	71.1	76.0	78.9	77.5	77.0
67.5°	787.9	481.9	148.1	98.4	84.8	71.6	67.2	73.6	77.5	77.5	77.0
70°	632.5	365.9	121.8	87.2	76.5	66.3	62.9	68.2	71.6	72.6	72.6
72.5°	435.6	223.7	98.9	75.0	67.2	59.9	57.0	60.4	62.4	64.3	63.8
74°	281.2	156.9	86.7	68.2	61.4	55.1	53.6	55.1	56.0	58.0	58.5
75°	188.1	128.2	80.9	63.3	58.0	51.7	50.7	52.1	53.1	54.6	54.6
77.5°	108.2	91.6	65.3	52.6	48.2	44.3	43.9	44.3	45.8	47.3	46.8
80°	75.0	69.7	51.7	40.9	38.0	36.1	36.5	37.0	39.5	40.0	39.5
82.5°	45.3	50.2	36.5	30.7	28.7	28.3	29.7	30.7	32.6	33.1	32.6
85°	18.0	23.9	18.0	17.1	19.0	21.0	23.4	24.9	25.8	25.8	25.8
87.5°	0.0	3.4	4.4	6.8	10.7	12.7	16.6	18.0	19.0	18.5	18.0
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-SA1B-740-U-SL4-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)