

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-HSS-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P401134 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-HSS-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4586.9 lumens
Efficiency: N/A
Efficacy: 109.0 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: B0 - U5 - G1

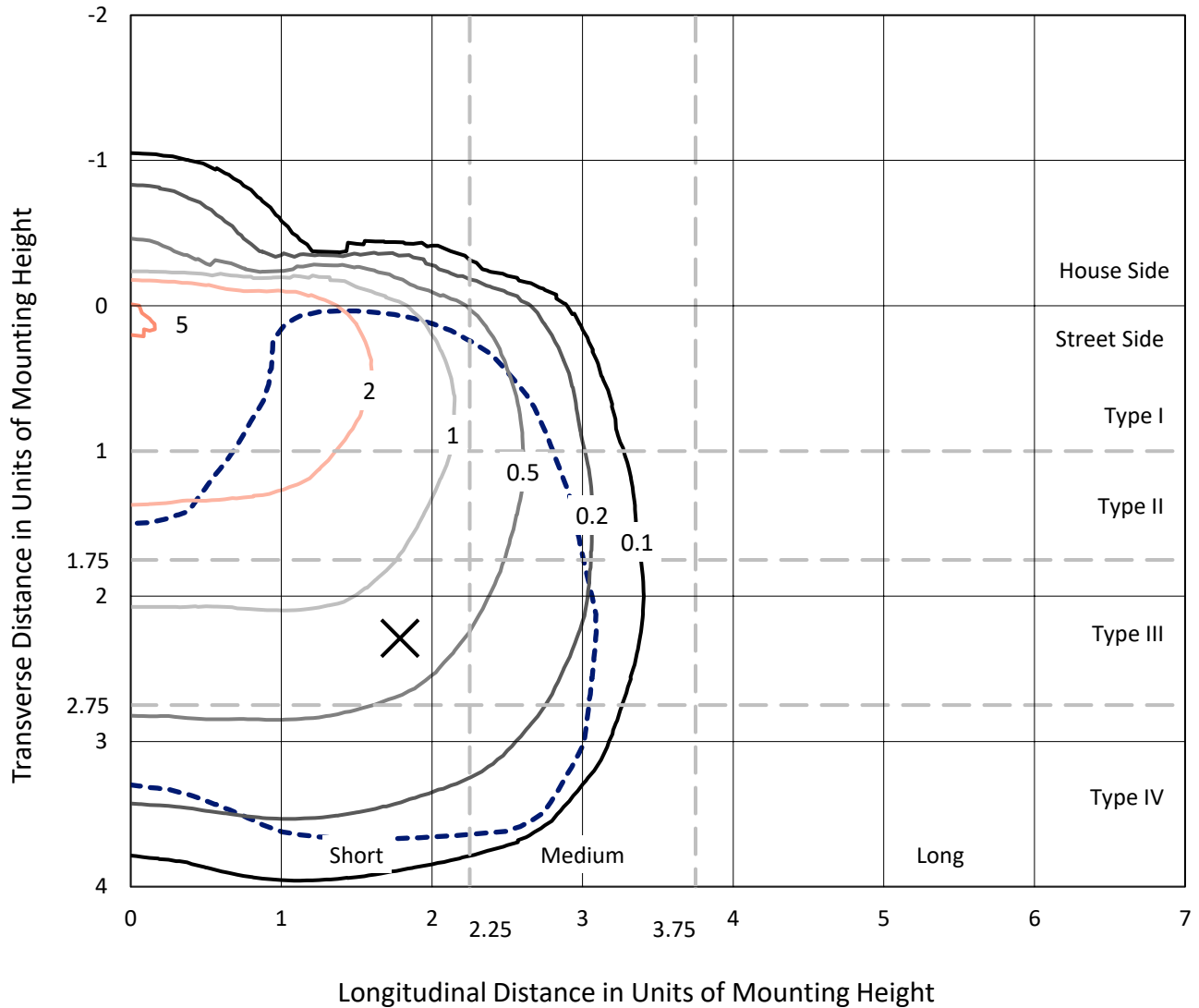
Input Watts (W): 42.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

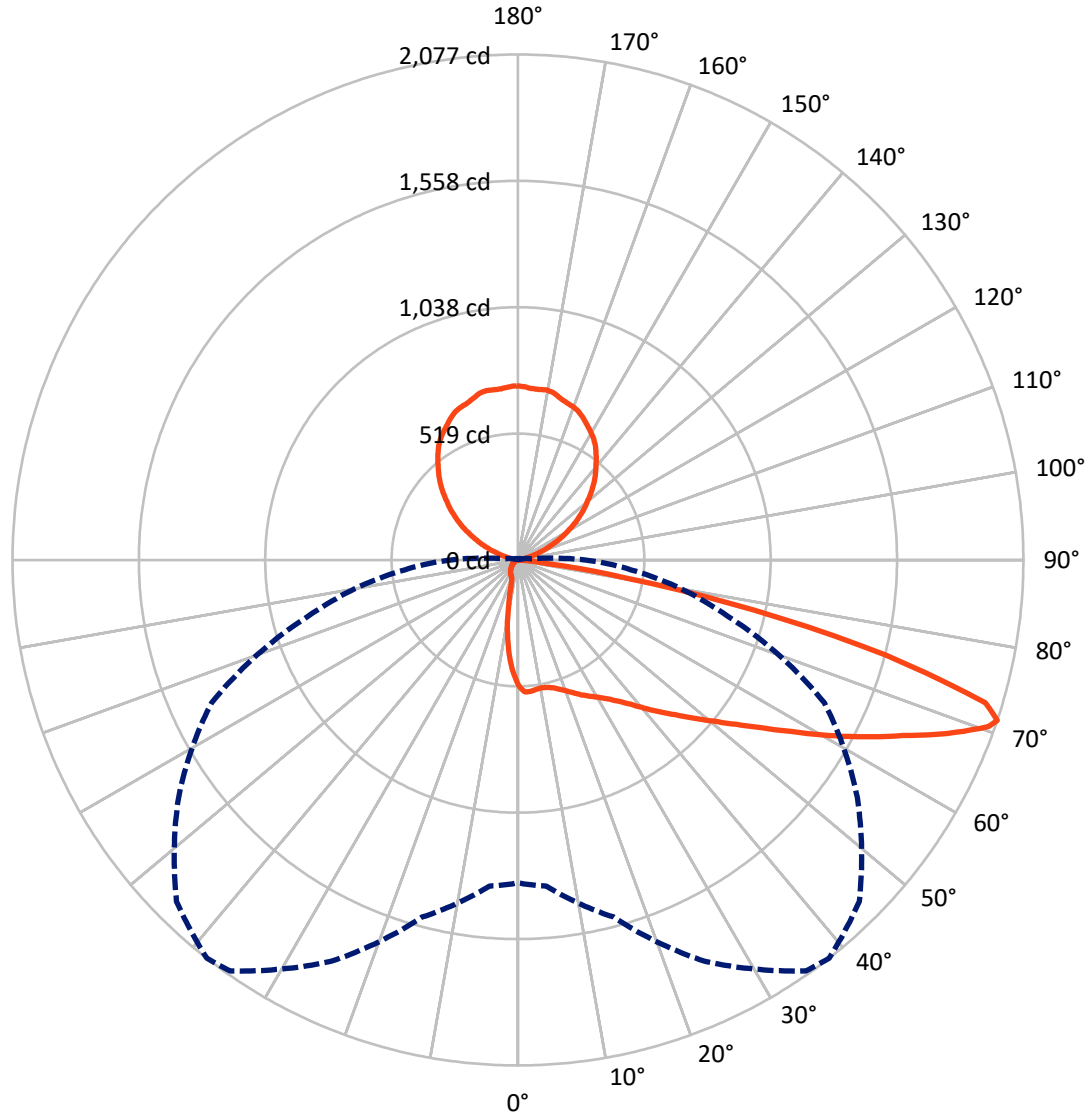
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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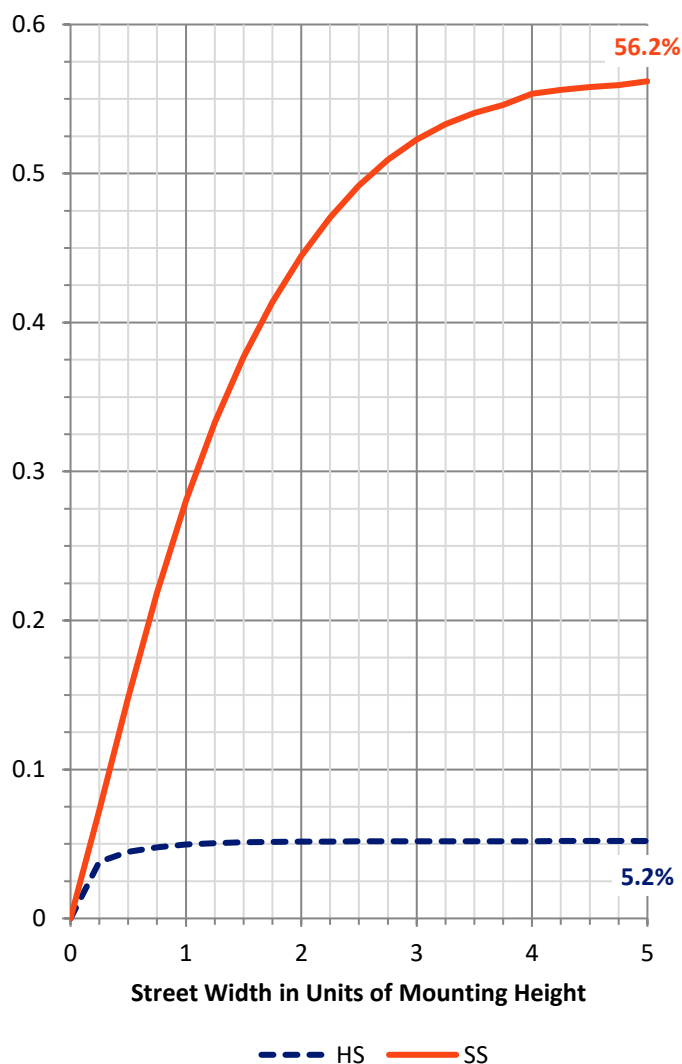
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	240.3	887.0	1127.2
	% Fixture	5.2	19.3	24.6
Street Side	Lumens	2572.7	887.0	3459.7
	% Fixture	56.1	19.3	75.4
Total	Lumens	2813.0	1773.9	4586.9
	% Fixture	61.3	38.7	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	1.0
10°-20°	106.0	2.3
20°-30°	170.1	3.7
30°-40°	258.7	5.6
40°-50°	403.2	8.8
50°-60°	589.6	12.9
60°-70°	756.2	16.5
70°-80°	462.2	10.1
80°-90°	23.2	0.5
90°-100°	8.4	0.2
100°-110°	58.7	1.3
110°-120°	169.9	3.7
120°-130°	279.4	6.1
130°-140°	344.6	7.5
140°-150°	352.5	7.7
150°-160°	297.0	6.5
160°-170°	195.5	4.3
170°-180°	67.8	1.5
0°-90°	2813.0	61.3
0°-180°	4586.9	100.0

Coefficient of Utilization



REPORT NUMBER:

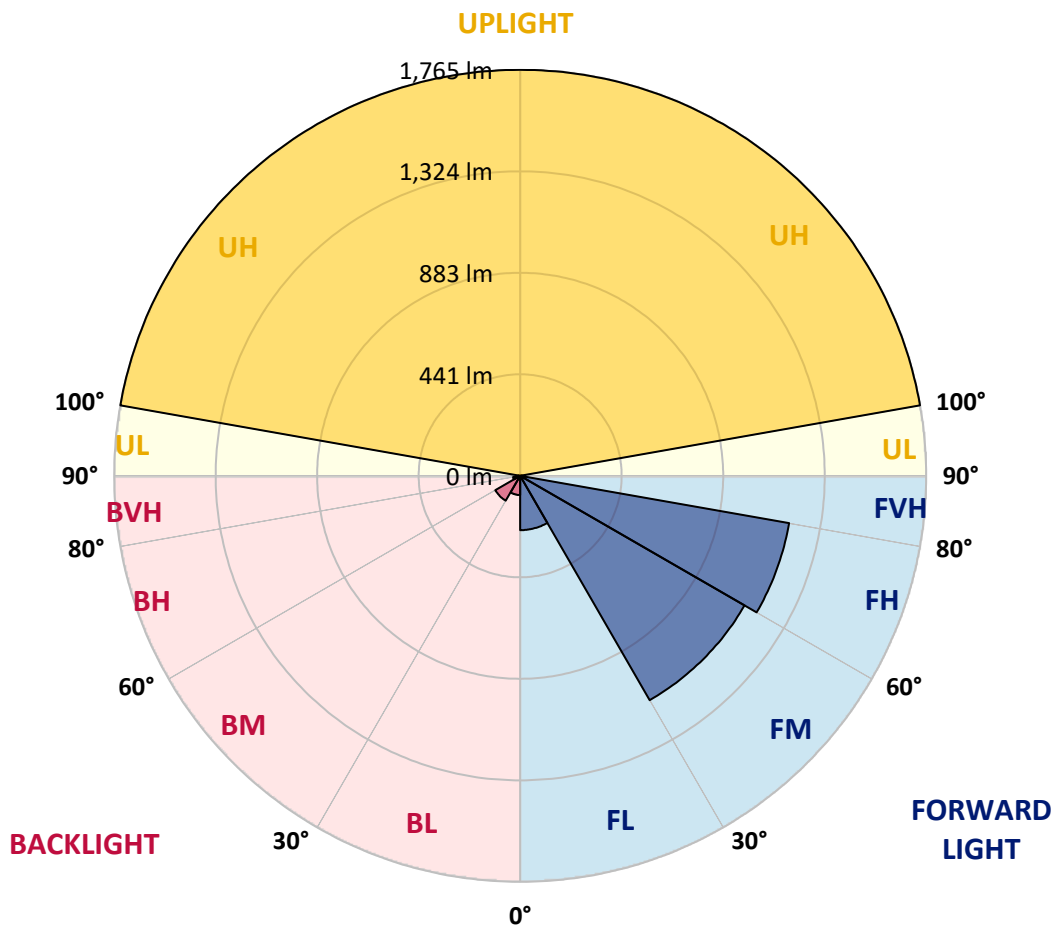
CATALOG NUMBER: ENT-SA1B-740-U-SL4-HSS-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	236.4	5.2			
FM (30°-60°)	1126.6	24.6			
FH (60°-80°)	1187.5	25.9			G1/1800
FVH (80°-90°)	22.2	0.5			G1/100
BL (0°-30°)	83.6	1.8	B0/110		
BM (30°-60°)	124.8	2.7	B0/220		
BH (60°-80°)	30.9	0.7	B0/110		G0/110
BVH (80°-90°)	1.0	0.0			G0/10
UL (90°-100°)	8.4	0.2		U1/10	
UH (100°-180°)	1765.5	38.5		U5	

BUG Rating: B0-U5-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	518.6	518.6	518.6	518.6	518.6	518.6	518.6	518.6	518.6	518.6	518.6
2.5°	549.3	547.8	549.3	547.8	544.9	543.4	541.5	536.1	531.3	525.4	516.6
5°	550.3	549.3	549.3	547.3	543.9	542.5	540.5	535.2	528.8	520.0	506.9
7.5°	544.9	544.4	543.4	541.5	537.6	536.6	535.2	528.8	522.5	513.2	497.1
10°	536.1	537.1	536.6	536.6	535.2	534.2	533.2	525.9	519.1	508.3	491.3
12.5°	527.8	528.8	531.3	535.2	536.6	537.1	537.1	529.8	521.5	509.8	492.3
15°	522.5	524.4	531.3	539.1	543.4	544.9	546.4	538.6	528.8	516.1	497.6
17.5°	521.0	523.9	537.1	549.3	557.6	558.5	558.5	548.8	538.6	523.9	504.0
20°	525.9	529.8	546.9	563.9	574.1	575.1	573.2	560.5	548.3	532.2	509.3
22.5°	540.5	543.9	563.4	583.4	593.2	594.1	589.7	572.2	559.0	545.9	516.6
25°	565.9	567.8	588.8	607.8	613.1	614.6	607.3	586.3	571.2	559.0	526.9
27.5°	599.5	600.5	619.5	633.6	634.6	634.1	626.3	604.4	589.3	579.0	542.5
30°	634.6	636.0	651.6	660.9	657.0	655.1	648.2	624.8	611.2	603.4	564.9
32.5°	667.2	668.7	685.8	690.6	681.9	680.4	675.5	650.7	639.0	642.9	597.1
35°	699.4	699.4	718.9	721.3	713.5	713.5	713.5	683.8	681.9	695.0	641.9
37.5°	728.2	733.0	753.5	752.5	751.1	752.0	755.0	732.5	739.4	761.8	700.9
40°	752.5	758.9	786.2	788.6	794.9	800.3	804.7	793.0	809.1	845.6	776.4
42.5°	774.5	781.8	816.9	828.1	845.6	852.9	861.2	858.3	893.9	960.6	872.9
45°	802.7	810.5	846.6	873.4	897.8	907.5	926.0	938.7	997.7	1073.7	977.2
47.5°	840.3	845.6	878.8	921.2	954.3	971.9	1000.6	1033.3	1104.9	1193.6	1070.3
50°	891.4	891.9	916.8	971.9	1021.1	1040.1	1089.8	1132.2	1221.9	1299.4	1137.6
52.5°	948.0	945.0	964.5	1034.2	1096.6	1122.5	1180.9	1239.9	1330.1	1375.9	1167.8
55°	1001.6	1003.0	1015.2	1100.5	1191.7	1216.5	1290.6	1350.6	1429.0	1422.7	1184.4
57.5°	1063.5	1063.0	1078.6	1173.1	1302.8	1331.5	1409.0	1458.3	1489.0	1456.3	1187.3
60°	1122.0	1120.5	1144.4	1259.9	1421.2	1463.6	1533.3	1531.4	1548.9	1477.8	1184.8
62.5°	1174.1	1177.5	1219.4	1360.8	1553.8	1599.6	1634.7	1610.3	1615.2	1502.6	1154.6
65°	1237.5	1243.8	1311.6	1483.1	1717.6	1739.5	1753.1	1713.7	1664.9	1482.6	1063.0
67.5°	1317.4	1336.4	1431.9	1663.5	1888.1	1903.3	1903.7	1776.0	1663.0	1381.7	893.9
70°	1349.1	1369.1	1521.1	1806.3	2031.9	2050.9	1991.5	1766.3	1531.9	1082.0	603.4
71°	1327.2	1345.2	1518.7	1819.9	2061.7	2076.8	1983.7	1702.5	1389.1	891.4	467.4
72.5°	1168.8	1215.5	1425.1	1734.1	2008.5	2009.0	1857.4	1551.8	1104.9	556.6	234.9
75°	631.2	687.7	1044.5	1319.8	1549.4	1561.6	1429.0	1077.6	534.7	144.3	57.0
77.5°	208.1	234.4	468.4	685.3	971.9	990.9	873.9	478.6	168.6	48.7	29.7
80°	130.6	133.5	158.4	288.0	432.3	448.4	359.7	194.0	76.0	26.8	20.5
82.5°	21.9	26.3	74.6	84.8	152.6	120.9	81.9	98.9	35.6	12.2	17.5
85°	0.0	0.0	0.5	0.5	2.4	0.5	0.5	20.0	1.9	1.9	9.3
87.5°	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5	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°	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	15.1	21.5	29.7	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	31.6	40.9	51.1	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	53.7	64.4	73.7	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	79.3	90.0	97.2	96.2	92.1	89.0



REPORT NUMBER:

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

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	108.0	116.6	122.8	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	139.9	146.3	151.4	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	173.7	178.0	183.1	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	207.5	209.7	215.8	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	244.3	248.6	251.6	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	279.1	283.4	285.4	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	313.5	317.1	320.2	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.1	347.8	352.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	379.1	380.5	385.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	413.6	414.3	420.4	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	445.6	447.0	453.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	475.8	478.7	483.9	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	504.1	508.4	511.5	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	534.2	537.0	539.1	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	562.9	563.6	568.8	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	587.5	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	643.9	642.4	640.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	660.5	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	676.8	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	702.9	700.7	693.6	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	708.3	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	706.6	705.8	705.8	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	712.4	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	518.6	518.6	518.6	518.6	518.6	518.6	518.6	518.6	518.6	518.6	518.6
2.5°	512.7	508.8	501.0	492.8	482.5	473.7	470.8	464.5	461.6	459.1	459.1
5°	498.6	491.8	475.2	458.1	441.6	424.0	407.9	392.8	385.5	375.3	380.2
7.5°	486.9	475.2	451.8	425.0	390.9	356.3	329.5	306.1	286.6	280.2	275.9
10°	478.6	464.0	429.9	388.9	339.2	290.0	248.6	210.1	187.6	174.0	174.0
12.5°	477.6	459.1	414.8	351.9	280.2	213.5	162.3	125.7	107.7	99.4	98.9
15°	481.1	458.6	401.1	318.3	226.1	148.2	101.4	85.3	80.9	79.9	79.9
17.5°	484.0	458.1	385.0	280.2	166.7	97.5	80.4	77.5	76.5	76.0	76.0
20°	486.9	455.7	366.5	237.4	117.9	79.4	75.1	73.6	73.1	72.6	72.6
22.5°	490.8	453.3	347.5	188.6	87.2	74.1	71.6	70.2	69.7	69.7	69.7
25°	496.2	451.8	324.1	142.8	75.1	70.2	67.7	66.8	66.8	66.3	66.3
27.5°	506.4	453.3	298.8	102.4	70.2	66.3	64.8	63.8	63.8	63.4	63.4
30°	520.5	457.7	267.1	79.9	66.3	62.4	60.9	60.4	59.9	59.9	59.9
32.5°	540.5	464.5	232.5	68.2	61.4	58.5	57.0	56.5	56.5	56.5	56.0
35°	571.2	478.6	190.1	62.4	57.0	54.1	52.6	52.6	52.6	52.2	52.6
37.5°	618.0	501.5	147.2	57.5	52.2	49.7	48.7	48.3	48.3	48.3	48.3
40°	677.0	538.6	107.2	53.1	47.8	45.3	44.4	43.9	43.4	43.4	43.4
42.5°	753.0	579.5	78.0	48.3	43.9	41.4	40.5	39.5	38.5	38.0	38.0
45°	832.0	628.2	60.9	44.4	40.0	38.0	37.0	35.6	34.1	32.7	32.7
47.5°	908.5	665.8	52.2	40.0	36.6	34.6	33.6	31.7	29.2	27.8	27.8
50°	956.7	677.5	46.8	36.1	33.1	31.7	30.2	27.8	24.4	22.9	22.9
52.5°	971.9	656.0	41.9	32.7	30.2	28.8	26.8	23.4	20.0	18.0	18.0
55°	977.7	614.6	37.0	30.2	27.3	25.3	22.9	19.5	16.1	14.1	14.1
57.5°	970.4	556.1	33.1	27.3	24.4	22.4	19.5	15.6	12.2	10.7	10.7
60°	945.5	471.3	29.7	24.4	21.4	19.0	16.1	12.2	9.3	7.3	7.8
62.5°	878.3	364.6	25.8	20.5	18.5	16.1	12.7	9.3	5.8	4.9	4.9
65°	771.0	252.5	21.9	17.1	15.6	13.2	9.7	6.3	3.4	2.9	2.9
67.5°	626.3	163.3	17.1	14.1	13.2	10.7	7.3	3.9	1.9	1.9	1.5
70°	393.3	80.9	13.6	10.7	10.7	8.3	5.4	2.4	1.5	1.5	1.5
71°	278.3	55.1	12.2	9.7	9.7	7.8	4.9	1.9	1.5	1.5	1.5
72.5°	125.7	34.6	10.2	8.8	8.3	6.3	4.4	1.9	1.9	1.9	1.9
75°	39.5	19.0	7.3	6.8	6.8	5.4	3.9	2.4	2.4	2.4	2.4
77.5°	26.3	14.6	4.9	4.4	5.4	5.4	3.9	2.9	2.9	2.9	2.9
80°	21.4	7.8	2.9	2.9	3.9	4.9	3.9	2.9	3.4	2.9	2.9
82.5°	21.0	3.9	1.0	1.5	2.4	2.9	2.9	2.4	2.9	2.9	2.9
85°	8.8	1.0	0.5	1.0	1.0	1.5	1.5	1.9	2.4	2.4	2.4
87.5°	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0	1.5	1.9	1.9
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-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)