

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-T2-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P401688 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-T2-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8774.9 lumens
Efficiency: N/A
Efficacy: 118.7 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type III - Medium
BUG Rating: B1 - U5 - G2

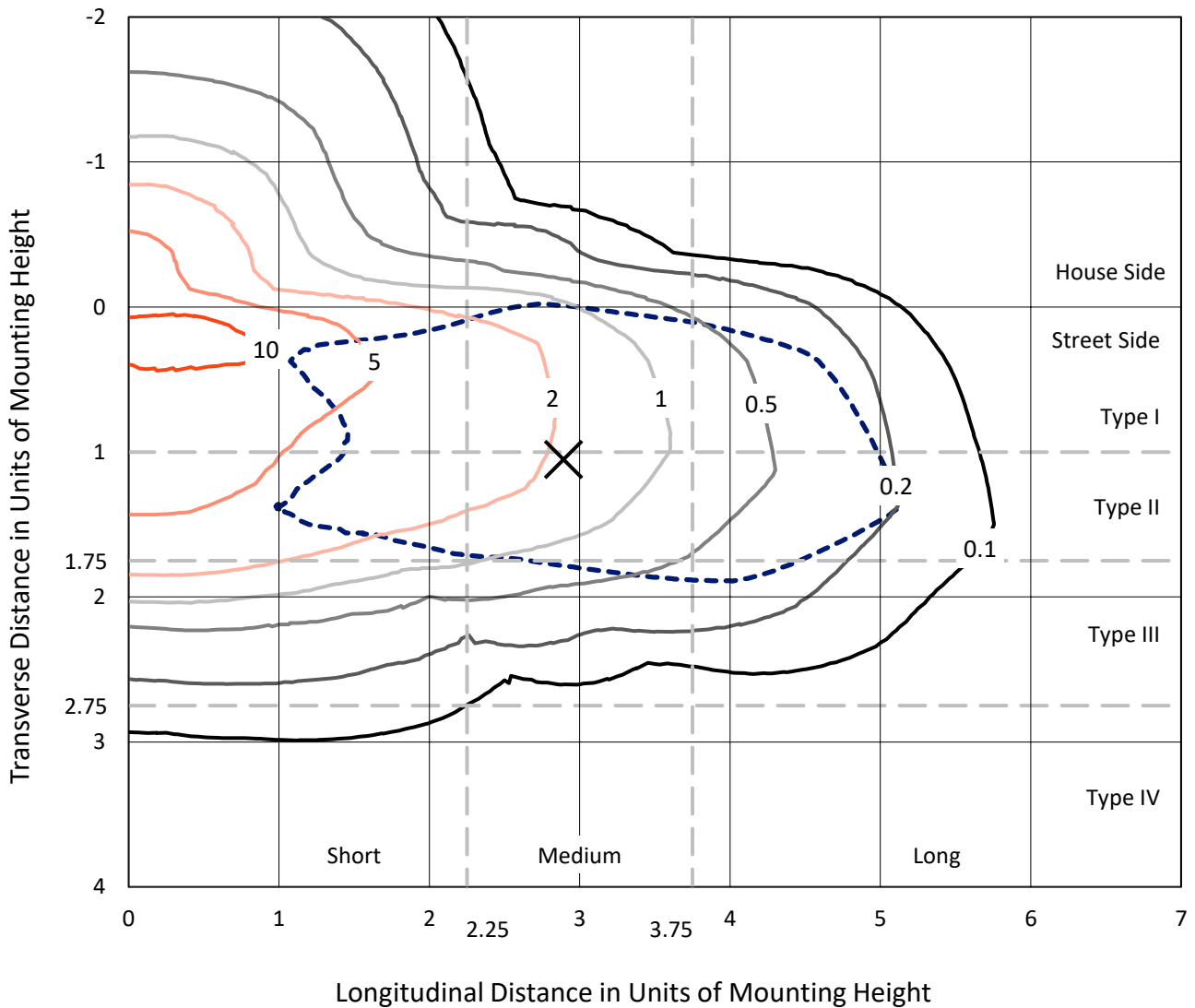
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1E-740-U-T2-ULG

Iso-Footcandle Lines of Horizontal Illumination

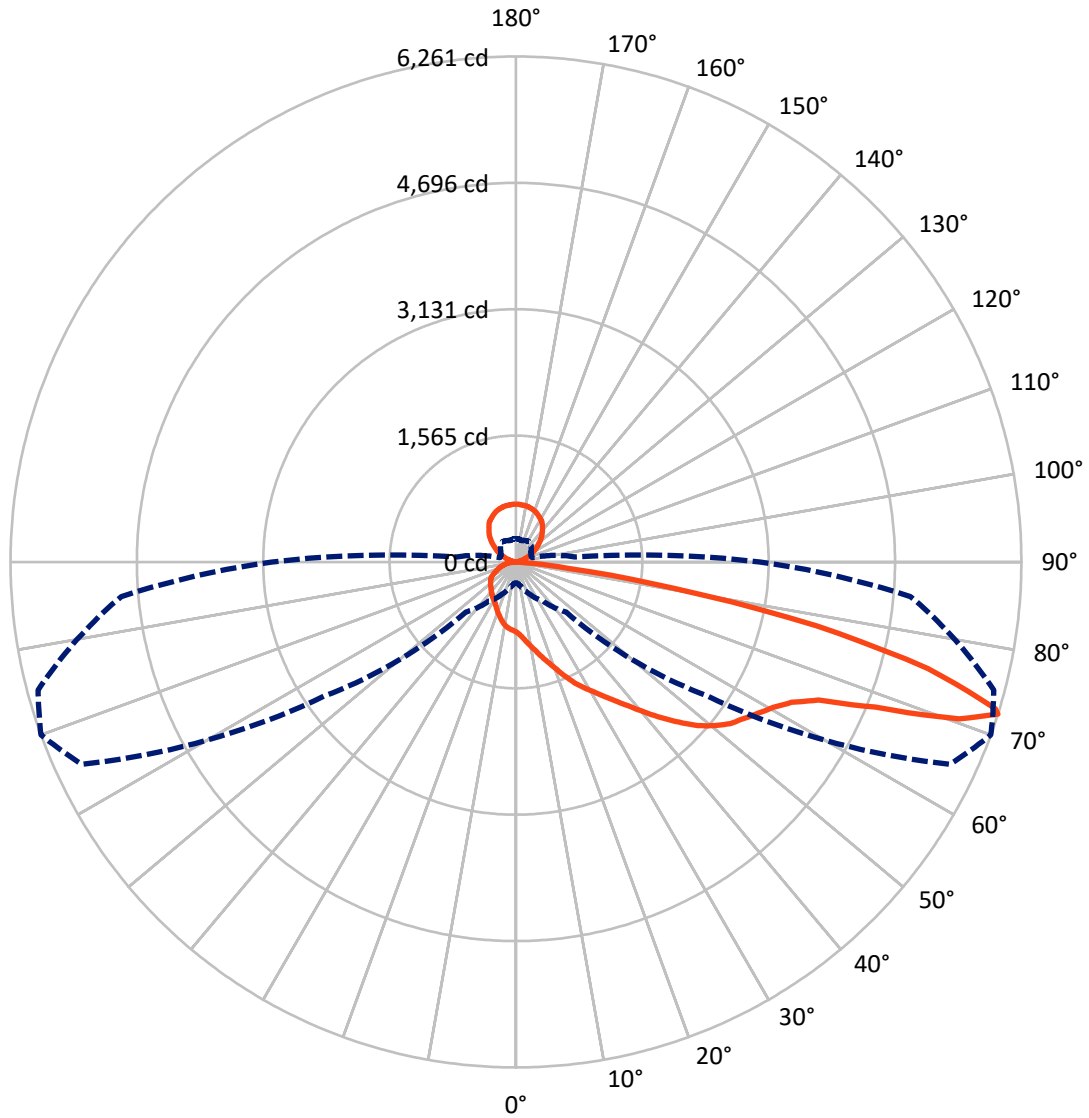
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.1 fc
 Type III - Medium - N/A

REPORT NUMBER:
CATALOG NUMBER: ENT-SA1E-740-U-T2-ULG

Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

REPORT NUMBER:

CATALOG NUMBER: ENT-SA1E-740-U-T2-ULG

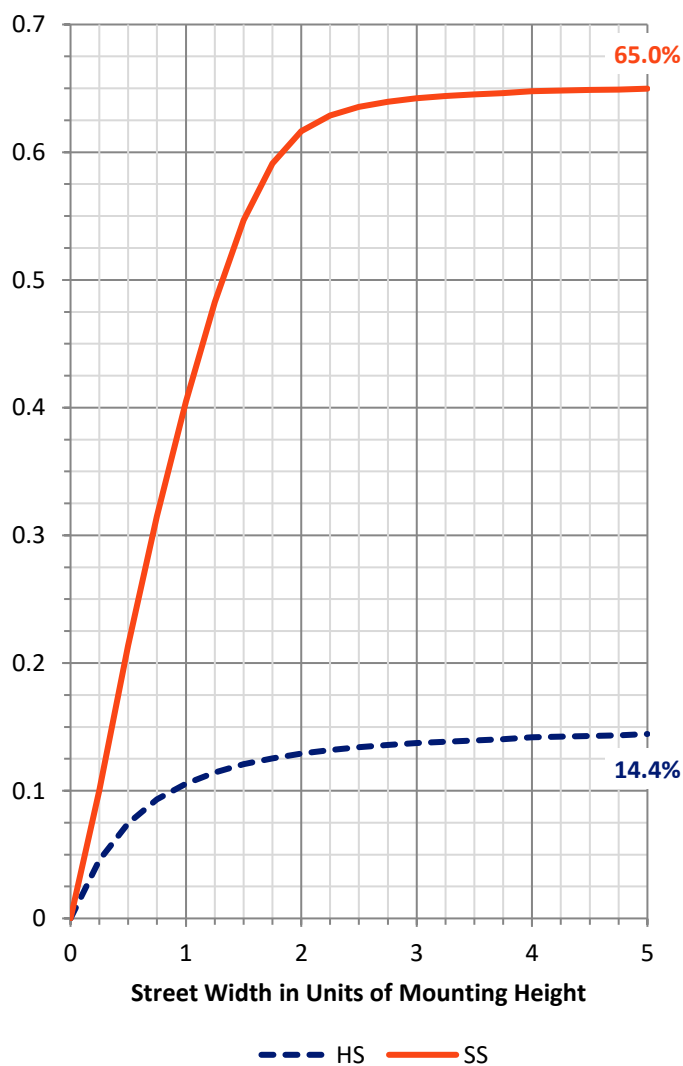
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1300.8	887.0	2187.8
	% Fixture	14.8	10.1	24.9
Street Side	Lumens	5700.1	887.0	6587.1
	% Fixture	65.0	10.1	75.1
Total	Lumens	7001.0	1773.9	8774.9
	% Fixture	79.8	20.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.2	1.0
10°-20°	279.6	3.2
20°-30°	495.1	5.6
30°-40°	736.1	8.4
40°-50°	1067.9	12.2
50°-60°	1458.9	16.6
60°-70°	1597.3	18.2
70°-80°	1136.2	12.9
80°-90°	142.6	1.6
90°-100°	8.4	0.1
100°-110°	58.7	0.7
110°-120°	169.9	1.9
120°-130°	279.4	3.2
130°-140°	344.6	3.9
140°-150°	352.5	4.0
150°-160°	297.0	3.4
160°-170°	195.5	2.2
170°-180°	67.8	0.8
0°-90°	7001.0	79.8
0°-180°	8774.9	100.0

Coefficient of Utilization



REPORT NUMBER:

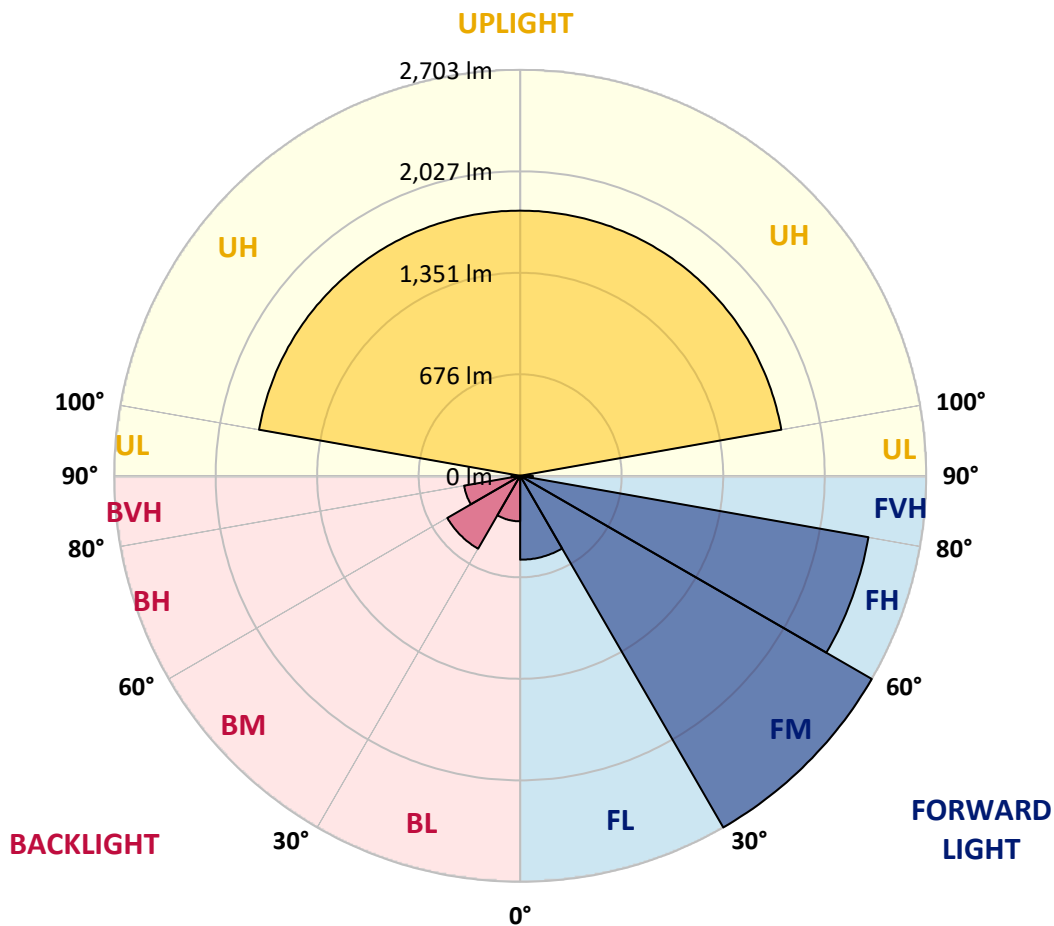
CATALOG NUMBER: ENT-SA1E-740-U-T2-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	558.8	6.4			
FM (30°-60°)	2702.8	30.8			
FH (60°-80°)	2354.3	26.8			G2/5000
FVH (80°-90°)	84.3	1.0			G1/100
BL (0°-30°)	303.1	3.5	B1/500		
BM (30°-60°)	560.1	6.4	B1/1000		
BH (60°-80°)	379.3	4.3	B1/500		G1/500
BVH (80°-90°)	58.4	0.7			G1/100
UL (90°-100°)	8.4	0.1		U1/10	
UH (100°-180°)	1765.5	20.1		U5	

BUG Rating: B1-U5-G2

Type III Medium





REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1E-740-U-T2-ULG

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	867.0	867.0	867.0	867.0	867.0	867.0	867.0	867.0	867.0	867.0	867.0
2.5°	964.0	959.0	960.0	951.0	946.0	934.0	921.0	907.0	900.0	895.0	878.0
5°	1058.0	1058.0	1062.0	1055.0	1036.0	1016.0	993.0	962.0	949.0	931.0	897.0
7.5°	1136.0	1138.0	1138.0	1136.0	1119.0	1097.0	1067.0	1029.0	1008.0	982.0	929.0
10°	1176.0	1181.0	1185.0	1188.0	1186.0	1173.0	1139.0	1100.0	1071.0	1037.0	966.0
12.5°	1196.0	1198.0	1205.0	1220.0	1232.0	1242.0	1217.0	1171.0	1142.0	1101.0	1006.0
15°	1218.0	1218.0	1225.0	1244.0	1267.0	1294.0	1291.0	1255.0	1224.0	1173.0	1057.0
17.5°	1232.0	1236.0	1249.0	1269.0	1301.0	1346.0	1369.0	1349.0	1309.0	1255.0	1112.0
20°	1224.0	1227.0	1253.0	1292.0	1333.0	1391.0	1449.0	1449.0	1411.0	1349.0	1173.0
22.5°	1239.0	1244.0	1262.0	1299.0	1355.0	1430.0	1525.0	1558.0	1525.0	1457.0	1244.0
25°	1297.0	1295.0	1310.0	1325.0	1373.0	1466.0	1590.0	1675.0	1645.0	1570.0	1313.0
27.5°	1381.0	1381.0	1389.0	1388.0	1405.0	1496.0	1647.0	1778.0	1753.0	1663.0	1370.0
30°	1478.0	1480.0	1478.0	1477.0	1474.0	1537.0	1698.0	1870.1	1857.1	1768.0	1422.0
32.5°	1596.0	1601.0	1593.0	1573.0	1561.0	1596.0	1741.0	1973.1	1977.1	1872.1	1473.0
35°	1744.0	1752.0	1722.0	1693.0	1663.0	1679.0	1791.0	2070.1	2110.1	1990.1	1535.0
37.5°	1892.1	1905.1	1900.1	1822.1	1780.0	1779.0	1865.1	2191.1	2258.1	2144.1	1623.0
40°	2017.1	2028.1	2034.1	1963.1	1905.1	1903.1	1974.1	2317.1	2440.1	2321.1	1727.0
42.5°	2100.1	2110.1	2128.1	2086.1	2032.1	2057.1	2094.1	2442.1	2636.1	2537.1	1855.1
45°	2190.1	2198.1	2209.1	2185.1	2157.1	2229.1	2246.1	2581.1	2832.1	2769.1	2005.1
47.5°	2286.1	2294.1	2300.1	2282.1	2272.1	2373.1	2395.1	2723.1	3030.1	3009.1	2151.1
50°	2392.1	2395.1	2401.1	2392.1	2395.1	2504.1	2518.1	2848.1	3187.1	3259.1	2303.1
52.5°	2574.1	2578.1	2580.1	2537.1	2522.1	2587.1	2617.1	2981.1	3325.1	3467.1	2437.1
55°	2718.1	2732.1	2795.1	2767.1	2731.1	2646.1	2699.1	3088.1	3423.1	3661.1	2577.1
57.5°	2600.1	2632.1	2789.1	2921.1	3022.1	2819.1	2796.1	3198.1	3536.1	3828.1	2740.1
60°	2257.1	2304.1	2532.1	2807.1	3134.1	3216.1	2995.1	3335.1	3659.1	4002.1	2915.1
62.5°	1565.0	1613.0	1928.1	2367.1	2945.1	3443.1	3540.1	3578.1	3830.1	4180.1	3143.1
65°	750.0	799.0	1059.0	1522.0	2326.1	3297.1	4175.1	4082.1	4118.1	4406.1	3479.1
67.5°	477.0	503.0	605.0	829.0	1353.0	2568.1	4403.1	5086.1	4800.1	4927.1	4148.1
70°	349.0	355.0	443.0	574.0	803.0	1500.0	3888.1	6047.2	5823.2	5809.2	4955.1
72°	258.0	268.0	336.0	458.0	594.0	877.0	2893.1	5930.2	6261.2	6128.2	4907.1
72.5°	243.0	251.0	310.0	433.0	561.0	770.0	2592.1	5794.2	6207.2	6137.2	4815.1
75°	177.0	183.0	212.0	308.0	434.0	446.0	1384.0	4447.1	5271.1	5859.2	4365.1
77.5°	122.0	126.0	141.0	189.0	297.0	302.0	587.0	3036.1	3804.1	4685.1	3357.1
80°	74.0	76.0	85.0	103.0	189.0	179.0	242.0	1587.0	1985.1	2547.1	1557.0
82.5°	31.0	32.0	37.0	41.0	80.0	85.0	98.0	518.0	657.0	796.0	449.0
85°	0.0	0.0	1.0	1.0	2.0	9.0	14.0	64.0	97.0	116.0	81.0
87.5°	0.0	0.0	1.0	1.0	1.0	2.0	2.0	3.0	4.0	4.0	6.0
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	6.6	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	8.2	7.7	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	10.2	9.7	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	26.6	25.1	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	48.1	45.5	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	71.6	69.0	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.2	94.1	92.1	89.0



REPORT NUMBER:
 CATALOG NUMBER: ENT-SA1E-740-U-T2-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.8	122.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	153.4	152.9	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	186.2	184.6	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	219.9	217.4	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	255.7	253.2	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	289.5	286.9	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	322.2	319.7	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	389.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	425.5	424.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	458.3	457.8	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	485.9	486.4	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	513.5	514.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	545.2	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	574.9	574.4	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	598.4	598.9	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	613.8	615.3	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	628.1	630.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	645.5	648.0	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	662.9	663.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	679.2	677.7	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	686.4	685.9	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	692.5	694.1	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	699.7	701.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	704.8	707.4	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	707.9	708.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	711.0	711.5	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	715.0	716.1	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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 CATALOG NUMBER: ENT-SA1E-740-U-T2-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	867.0	867.0	867.0	867.0	867.0	867.0	867.0	867.0	867.0	867.0	867.0
2.5°	870.0	866.0	854.0	844.0	836.0	823.0	822.0	812.0	812.0	809.0	807.0
5°	884.0	871.0	847.0	825.0	809.0	790.0	781.0	770.0	763.0	759.0	760.0
7.5°	902.0	880.0	839.0	802.0	772.0	748.0	734.0	725.0	720.0	718.0	718.0
10°	927.0	893.0	826.0	770.0	732.0	714.0	707.0	706.0	707.0	708.0	709.0
12.5°	955.0	902.0	802.0	732.0	702.0	695.0	699.0	708.0	716.0	719.0	719.0
15°	984.0	908.0	769.0	697.0	679.0	686.0	700.0	717.0	730.0	738.0	740.0
17.5°	1014.0	909.0	734.0	665.0	659.0	677.0	702.0	729.0	750.0	763.0	765.0
20°	1046.0	907.0	693.0	636.0	639.0	669.0	704.0	741.0	769.0	786.0	788.0
22.5°	1081.0	899.0	653.0	608.0	622.0	661.0	702.0	745.0	775.0	795.0	799.0
25°	1115.0	883.0	613.0	583.0	610.0	653.0	692.0	729.0	758.0	777.0	782.0
27.5°	1133.0	849.0	575.0	564.0	601.0	641.0	669.0	694.0	710.0	722.0	727.0
30°	1136.0	801.0	544.0	551.0	591.0	624.0	640.0	644.0	641.0	645.0	640.0
32.5°	1130.0	749.0	519.0	541.0	575.0	600.0	604.0	592.0	574.0	549.0	550.0
35°	1126.0	692.0	499.0	527.0	554.0	570.0	563.0	544.0	510.0	480.0	478.0
37.5°	1133.0	640.0	482.0	509.0	527.0	534.0	524.0	499.0	469.0	443.0	440.0
40°	1153.0	602.0	466.0	489.0	498.0	503.0	491.0	469.0	457.0	438.0	435.0
42.5°	1192.0	576.0	451.0	467.0	471.0	476.0	464.0	449.0	460.0	456.0	456.0
45°	1246.0	564.0	438.0	446.0	450.0	458.0	451.0	438.0	450.0	427.0	423.0
47.5°	1316.0	568.0	429.0	425.0	437.0	451.0	443.0	427.0	423.0	382.0	375.0
50°	1390.0	589.0	420.0	408.0	423.0	442.0	432.0	407.0	383.0	362.0	358.0
52.5°	1477.0	624.0	412.0	389.0	407.0	432.0	425.0	398.0	373.0	358.0	355.0
55°	1573.0	658.0	402.0	367.0	386.0	429.0	427.0	392.0	359.0	352.0	350.0
57.5°	1681.0	686.0	390.0	342.0	365.0	420.0	418.0	378.0	355.0	349.0	348.0
60°	1816.0	719.0	369.0	313.0	344.0	403.0	401.0	371.0	346.0	341.0	339.0
62.5°	2000.1	780.0	333.0	286.0	322.0	373.0	385.0	357.0	333.0	332.0	332.0
65°	2303.1	898.0	296.0	263.0	297.0	344.0	364.0	341.0	321.0	326.0	326.0
67.5°	2876.1	1057.0	258.0	241.0	273.0	316.0	346.0	325.0	308.0	318.0	318.0
70°	3318.1	998.0	228.0	220.0	249.0	291.0	323.0	308.0	292.0	309.0	307.0
72°	3027.1	731.0	208.0	203.0	229.0	270.0	303.0	292.0	275.0	289.0	285.0
72.5°	2906.1	664.0	202.0	198.0	223.0	266.0	299.0	288.0	270.0	284.0	278.0
75°	2535.1	560.0	176.0	174.0	198.0	239.0	273.0	267.0	249.0	257.0	251.0
77.5°	2098.1	472.0	148.0	152.0	169.0	213.0	246.0	240.0	223.0	222.0	221.0
80°	984.0	263.0	122.0	125.0	142.0	182.0	212.0	208.0	192.0	190.0	187.0
82.5°	285.0	126.0	94.0	96.0	114.0	149.0	182.0	180.0	168.0	165.0	158.0
85°	53.0	41.0	51.0	60.0	83.0	124.0	166.0	162.0	144.0	131.0	121.0
87.5°	3.0	8.0	17.0	29.0	53.0	93.0	134.0	131.0	115.0	99.0	100.0
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-T2-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)