

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-SL3-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number:
REPORT IS A COMBINATION OF REPORTS P401132 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-SL3-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 450mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5136.9 lumens
Efficiency: N/A
Efficacy: 122.0 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 - G1

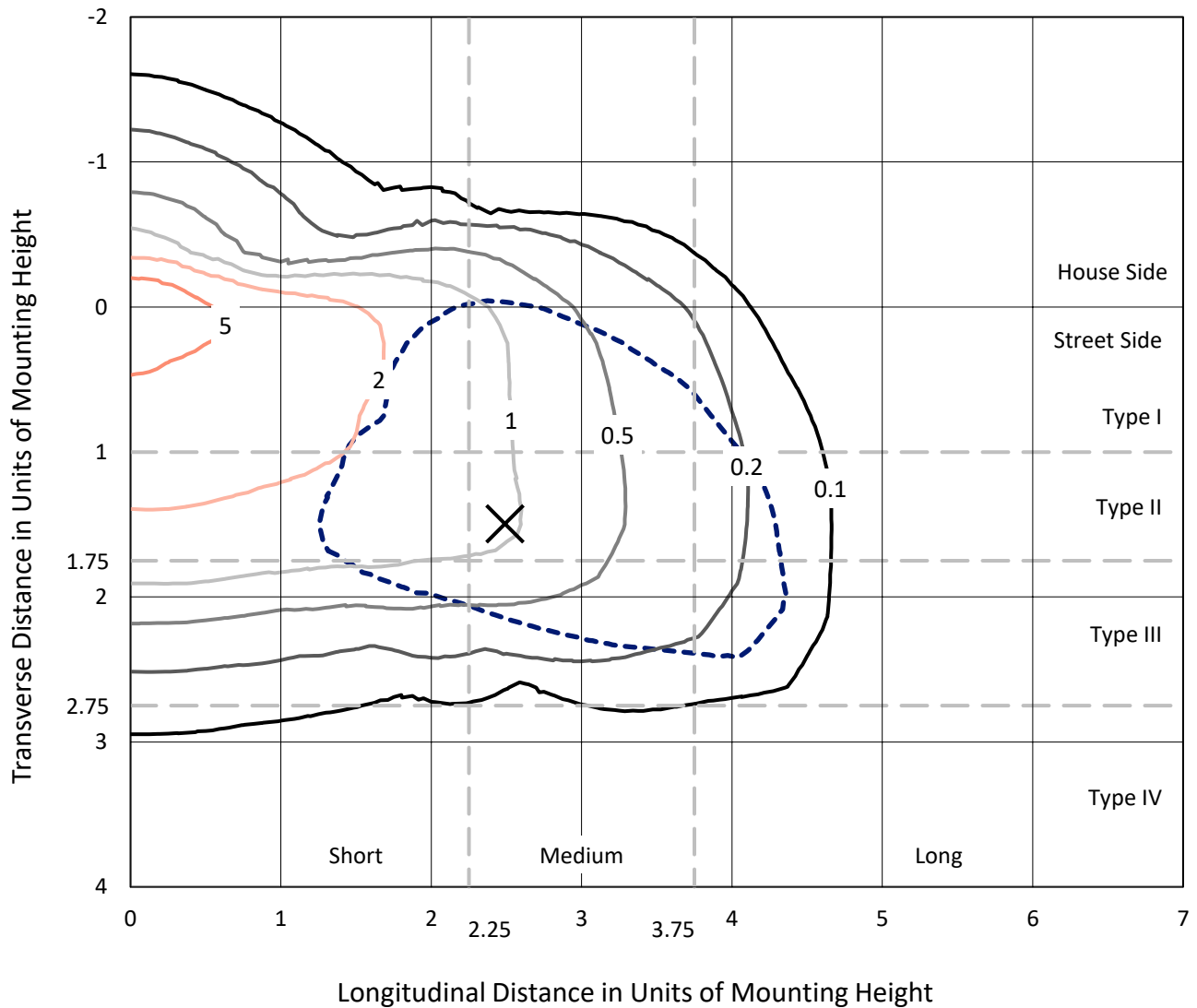
Input Watts (W): 42.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

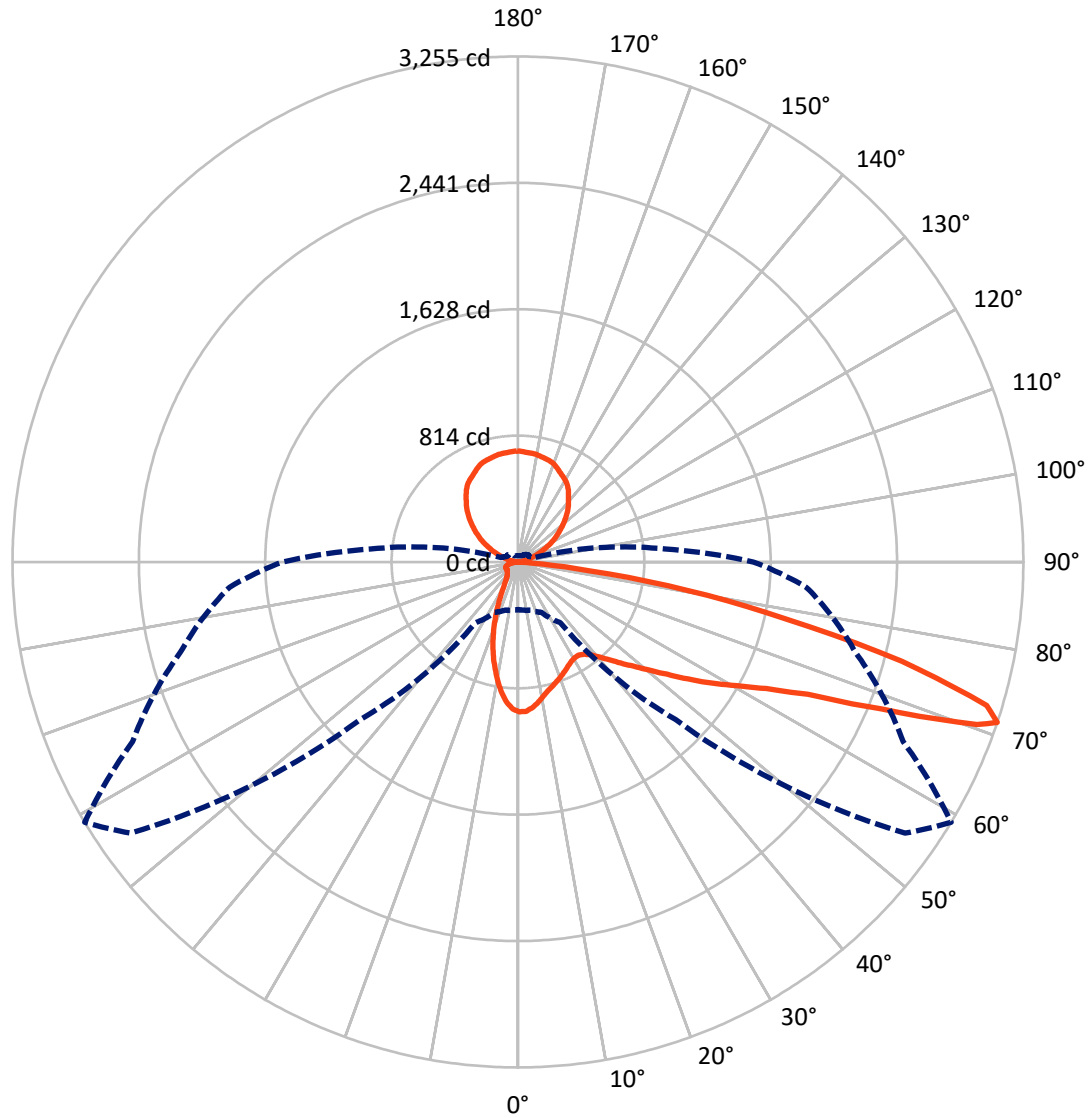
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.6 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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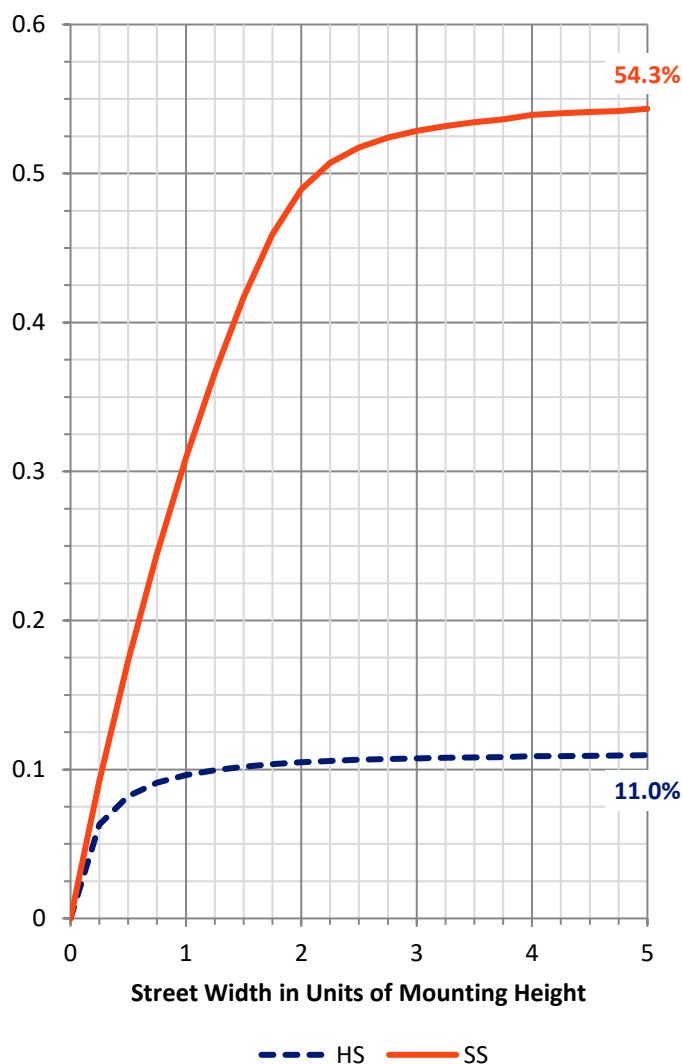
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	570.8	887.0	1457.8
	% Fixture	11.1	17.3	28.4
Street Side	Lumens	2792.2	887.0	3679.2
	% Fixture	54.4	17.3	71.6
Total	Lumens	3363.0	1773.9	5136.9
	% Fixture	65.5	34.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	1.6
10°-20°	187.3	3.6
20°-30°	238.0	4.6
30°-40°	304.3	5.9
40°-50°	422.3	8.2
50°-60°	625.2	12.2
60°-70°	845.1	16.5
70°-80°	599.3	11.7
80°-90°	58.2	1.1
90°-100°	8.4	0.2
100°-110°	58.7	1.1
110°-120°	169.9	3.3
120°-130°	279.4	5.4
130°-140°	344.6	6.7
140°-150°	352.5	6.9
150°-160°	297.0	5.8
160°-170°	195.5	3.8
170°-180°	67.8	1.3
0°-90°	3363.0	65.5
0°-180°	5136.9	100.0

Coefficient of Utilization



REPORT NUMBER:

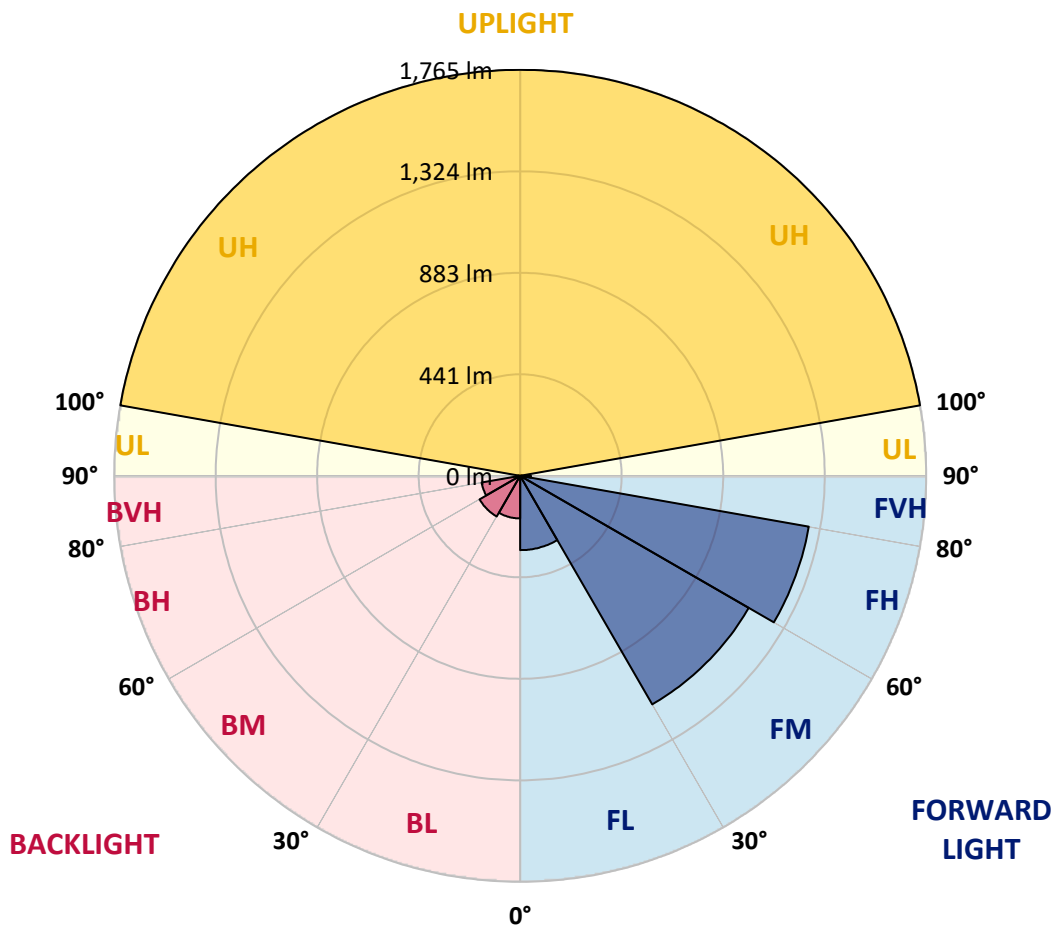
CATALOG NUMBER: ENT-SA1B-740-U-SL3-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	323.2	6.3			
FM (30°-60°)	1147.6	22.3			
FH (60°-80°)	1274.2	24.8			G1/1800
FVH (80°-90°)	47.1	0.9			G1/100
BL (0°-30°)	185.4	3.6	B1/500		
BM (30°-60°)	204.1	4.0	B0/220		
BH (60°-80°)	170.1	3.3	B1/500		G1/500
BVH (80°-90°)	11.1	0.2			G1/100
UL (90°-100°)	8.4	0.2		U1/10	
UH (100°-180°)	1765.5	34.4		U5	

BUG Rating: B1-U5-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	964.8	964.8	964.8	964.8	964.8	964.8	964.8	964.8	964.8	964.8	964.8
2.5°	956.6	960.0	961.4	963.9	963.9	964.8	963.9	963.9	965.3	963.4	958.0
5°	914.2	915.6	920.0	924.9	929.8	940.0	942.9	944.9	949.2	950.2	944.9
7.5°	856.7	862.0	867.9	874.2	884.4	898.6	910.7	915.6	923.9	928.8	921.0
10°	807.9	810.9	813.8	825.0	841.1	860.6	873.2	882.5	895.6	902.0	894.7
12.5°	759.2	761.6	767.5	782.6	799.2	822.5	845.5	852.8	868.4	881.0	875.2
15°	721.7	721.7	726.1	742.6	760.2	791.4	818.2	829.4	848.9	866.9	859.6
17.5°	688.5	690.0	692.9	703.6	728.0	760.7	794.8	808.9	833.3	856.7	846.9
20°	670.0	669.1	671.0	676.4	695.9	730.4	771.4	788.0	818.2	850.3	834.7
22.5°	663.7	662.7	661.3	660.8	673.4	702.7	746.5	767.0	804.5	846.9	823.5
25°	668.6	668.6	664.2	655.9	661.7	681.7	724.1	746.0	789.4	844.5	813.3
27.5°	681.7	681.7	675.4	664.7	662.2	671.0	704.6	728.0	776.7	845.9	805.0
30°	699.8	699.3	692.9	683.7	676.4	673.4	695.4	716.8	768.0	852.3	801.1
32.5°	720.2	719.2	716.3	710.0	701.2	688.5	696.3	715.3	766.0	863.5	801.6
35°	744.6	743.1	744.6	741.2	732.9	719.2	714.4	729.5	775.8	884.4	809.9
37.5°	766.0	765.0	772.4	774.3	772.4	754.3	748.0	757.7	798.7	917.6	826.9
40°	784.1	785.0	798.2	812.3	815.2	799.6	795.3	803.5	835.7	958.0	857.6
42.5°	804.0	807.0	826.4	851.8	861.5	851.3	853.7	859.6	882.5	1013.1	902.0
45°	823.5	829.9	856.7	889.3	914.2	914.2	922.4	928.3	942.9	1082.3	966.8
47.5°	857.6	862.0	891.3	930.7	968.7	980.9	1003.8	1001.9	1013.1	1158.3	1042.8
50°	902.0	909.3	939.0	979.9	1028.2	1062.8	1089.1	1093.0	1097.4	1236.3	1133.0
52.5°	963.4	972.1	996.5	1034.5	1091.5	1148.1	1203.6	1201.2	1195.3	1321.0	1236.3
55°	1025.3	1034.5	1057.4	1088.1	1155.4	1242.1	1332.7	1329.3	1302.5	1407.8	1331.8
57.5°	1088.1	1095.9	1119.8	1146.6	1226.0	1353.2	1469.2	1471.6	1416.6	1504.3	1426.3
60°	1114.4	1126.1	1185.1	1236.7	1336.2	1476.5	1608.5	1614.9	1535.0	1601.7	1530.6
62.5°	995.5	1009.7	1107.1	1246.5	1487.2	1714.3	1789.8	1793.7	1677.7	1709.4	1644.6
65°	736.8	736.3	837.2	1045.7	1457.0	2033.5	2112.9	2051.5	1855.1	1852.2	1795.2
67.5°	422.0	434.7	466.8	623.7	1110.0	2092.4	2687.9	2527.6	2169.4	2074.4	1995.9
70°	340.1	337.2	347.0	388.9	605.2	1720.6	3062.6	3135.7	2615.8	2255.7	1950.6
71°	306.5	310.9	320.6	358.6	477.5	1435.6	3044.1	3255.1	2737.6	2250.8	1864.4
72.5°	263.6	264.6	287.0	331.8	392.3	1012.6	2814.6	3156.7	2865.3	2187.0	1737.7
75°	179.3	181.8	216.8	267.0	358.2	481.0	2014.0	2553.4	2608.0	2043.7	1435.1
77.5°	102.8	104.8	130.1	195.4	305.0	339.2	1236.3	1764.5	1875.1	1494.5	769.4
80°	53.1	55.6	72.1	123.3	232.9	274.3	709.0	1109.6	1066.7	516.5	178.3
82.5°	14.1	16.1	21.0	44.3	112.6	178.8	314.3	459.0	327.9	107.2	64.8
85°	0.0	0.0	0.0	0.5	1.0	24.9	66.3	82.4	45.8	21.0	17.5
87.5°	0.0	0.0	0.0	0.0	0.5	1.0	1.0	1.0	1.0	1.5	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°	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	7.6	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.5	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	28.4	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	49.9	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	72.8	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.8	96.2	92.1	89.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.2	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	152.2	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	184.3	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	217.5	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	253.3	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	287.0	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	321.0	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.3	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	387.3	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	422.5	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	455.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.7	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	512.3	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	541.6	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	571.2	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	595.4	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	611.9	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	626.3	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	642.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	660.4	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	675.6	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	684.0	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	689.5	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	696.0	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	703.0	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	706.0	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	707.9	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	712.0	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°	964.8	964.8	964.8	964.8	964.8	964.8	964.8	964.8	964.8	964.8	964.8
2.5°	957.0	957.0	954.1	949.7	944.9	933.7	935.6	926.8	927.8	926.8	926.8
5°	940.5	937.5	930.2	916.6	901.5	881.5	878.6	862.5	853.2	850.3	853.7
7.5°	917.6	909.3	890.8	866.9	838.1	812.3	788.4	767.0	750.9	744.1	741.2
10°	887.4	877.1	846.9	805.0	765.5	725.1	687.6	663.2	631.0	621.3	618.4
12.5°	862.5	845.0	799.6	741.2	679.8	626.2	575.5	524.3	493.6	471.7	468.3
15°	841.1	816.2	751.4	675.9	599.4	525.3	456.6	387.9	344.5	326.0	312.8
17.5°	822.1	789.9	703.2	605.2	510.7	412.7	328.9	263.1	235.8	221.7	222.2
20°	802.6	761.6	653.0	534.6	423.0	314.3	232.4	201.7	188.1	185.2	183.7
22.5°	784.1	729.5	599.9	464.9	333.3	231.0	187.1	172.0	168.6	168.6	168.6
25°	763.1	696.8	546.3	393.7	252.4	182.2	160.8	155.4	156.4	158.4	158.9
27.5°	746.0	668.6	493.1	311.4	195.9	155.0	143.8	142.8	146.7	151.1	151.1
30°	730.9	642.7	435.6	243.2	155.9	136.0	132.1	133.5	137.4	141.3	142.8
32.5°	720.7	619.3	384.0	189.1	133.0	122.8	121.8	123.8	127.7	129.6	131.1
35°	716.3	602.3	328.4	152.5	118.4	113.1	112.6	114.0	116.0	116.5	116.0
37.5°	721.2	590.6	271.4	129.1	109.2	106.2	105.7	105.7	105.7	106.2	105.7
40°	735.3	586.2	220.3	114.0	103.3	100.9	99.4	97.9	97.0	97.0	96.5
42.5°	765.0	593.0	176.9	105.3	98.9	96.0	93.1	91.1	89.7	89.2	89.2
45°	812.8	612.0	147.2	99.4	95.0	90.6	87.2	85.3	83.8	84.3	83.8
47.5°	878.6	643.7	130.1	95.5	91.1	85.3	81.9	79.9	79.4	80.9	81.4
50°	953.1	688.5	119.9	92.6	88.2	80.9	77.0	75.5	76.0	78.9	79.4
52.5°	1040.9	746.5	115.5	90.6	85.8	77.0	73.6	72.1	73.1	76.5	77.0
55°	1135.4	812.8	121.8	91.6	83.3	74.6	70.7	68.7	70.2	73.1	73.6
57.5°	1231.4	894.7	143.3	92.1	80.4	72.6	67.7	64.8	65.8	68.2	68.7
60°	1328.4	976.0	180.3	92.6	79.4	70.7	65.3	60.9	61.4	62.9	63.3
62.5°	1442.4	1079.4	229.0	94.5	80.4	69.2	60.9	56.0	56.0	57.0	57.0
65°	1615.4	1233.3	261.2	93.6	82.8	67.7	56.5	51.7	51.2	51.7	51.7
67.5°	1739.6	1253.8	182.2	88.2	84.3	68.2	54.1	47.8	46.8	46.3	46.3
70°	1608.1	1055.0	120.4	83.3	81.9	69.2	52.1	45.3	43.4	41.9	41.4
71°	1516.9	950.7	111.6	81.4	79.9	68.2	51.2	43.9	41.9	40.9	40.4
72.5°	1382.0	848.4	102.8	78.5	75.5	66.3	49.7	42.4	40.0	38.5	38.0
75°	1092.0	650.5	90.1	72.1	65.3	54.6	45.8	39.5	37.0	35.1	34.6
77.5°	493.6	258.8	69.2	62.4	53.1	43.4	40.0	36.5	33.6	32.2	31.7
80°	137.9	98.4	50.7	49.2	40.0	33.6	32.2	31.2	30.2	28.3	28.3
82.5°	63.8	57.5	36.1	34.6	27.3	23.9	25.3	25.8	25.8	23.9	23.4
85°	17.5	19.0	16.6	18.5	17.5	16.1	18.5	20.0	21.0	19.0	17.5
87.5°	1.5	3.4	4.4	7.3	8.8	9.3	11.7	14.1	14.6	11.7	12.2
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



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 CATALOG NUMBER: ENT-SA1B-740-U-SL3-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)