

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: P400918

Luminaire Tested: **ENT-SA1A-730-U-SLR**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400918
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-9)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-730-U-SLR
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2201 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 20.1
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: 25 FT

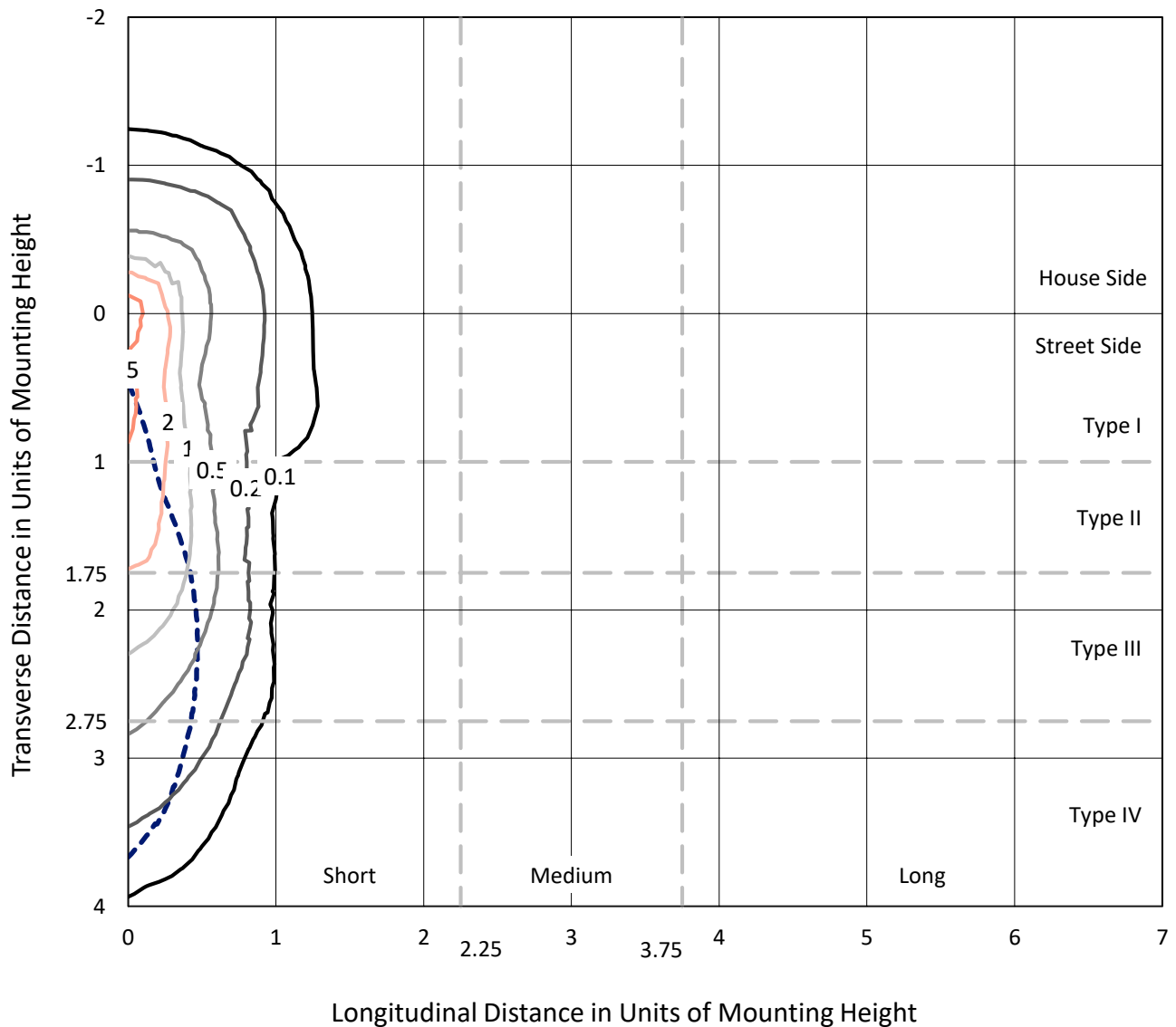


REPORT NUMBER: P400918

CATALOG NUMBER: ENT-SA1A-730-U-SLR

Iso-Footcandle Lines of Horizontal Illumination

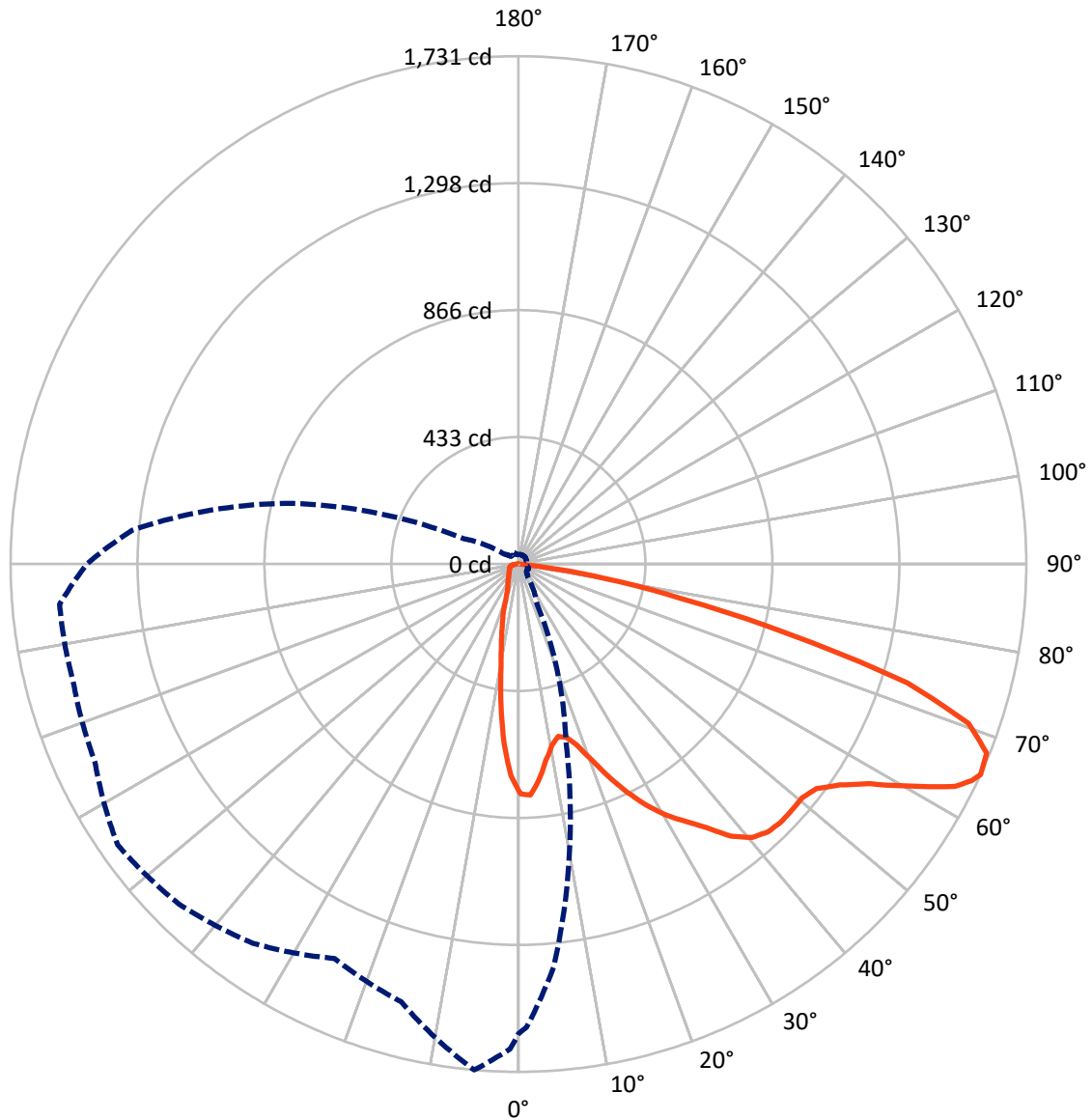
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.8 fc
 Type IV - Short - Non-Cutoff

REPORT NUMBER: P400918
CATALOG NUMBER: ENT-SA1A-730-U-SLR

Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P400918

CATALOG NUMBER: ENT-SA1A-730-U-SLR

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	451.6	0.0	451.6
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	1749.4	0.0	1749.4
	% Fixture	79.5	0.0	79.5
Total	Lumens	2201.0	0.0	2201.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.8	2.7
10°-20°	119.0	5.4
20°-30°	165.0	7.5
30°-40°	230.7	10.5
40°-50°	313.9	14.3
50°-60°	429.2	19.5
60°-70°	524.8	23.8
70°-80°	316.8	14.4
80°-90°	41.8	1.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2201.0	100.0
0°-180°	2201.0	100.0



REPORT NUMBER: P400918

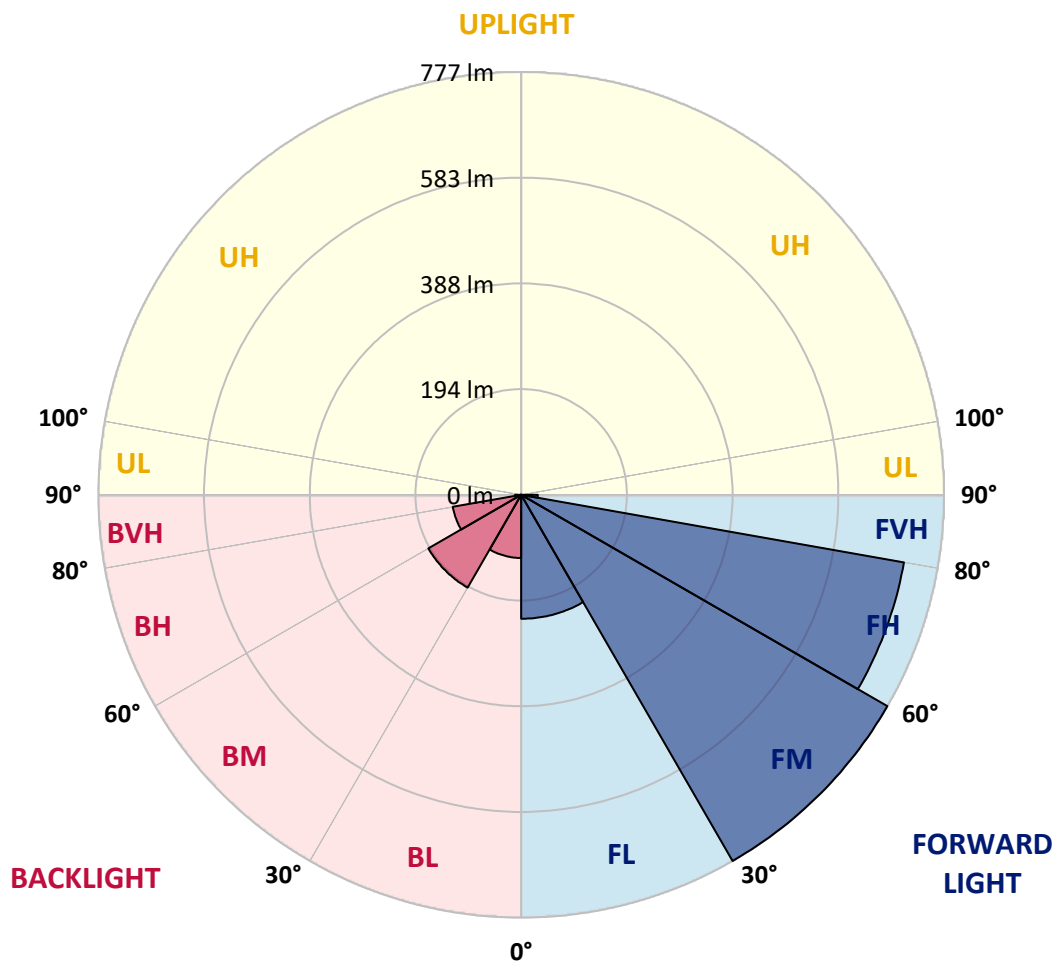
CATALOG NUMBER: ENT-SA1A-730-U-SLR

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	227.7	10.3			
FM (30°-60°)	776.9	35.3			
FH (60°-80°)	714.2	32.4			G1/1800
FVH (80°-90°)	30.5	1.4			G1/100
BL (0°-30°)	116.0	5.3	B1/500		
BM (30°-60°)	196.9	8.9	B0/220		
BH (60°-80°)	127.5	5.8	B1/500		G1/500
BVH (80°-90°)	11.2	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





REPORT NUMBER: P400918

CATALOG NUMBER: ENT-SA1A-730-U-SLR

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2
2.5°	781.4	779.2	773.7	758.9	743.1	724.3	721.0	700.8	703.0	697.1	698.6
5°	713.7	710.7	695.6	666.2	626.1	602.9	584.8	574.2	565.3	560.9	566.4
7.5°	647.8	643.7	625.7	573.8	529.3	492.5	463.0	445.0	427.3	413.3	406.7
10°	594.4	592.9	569.0	510.5	454.6	409.6	390.5	371.4	356.3	336.4	320.2
12.5°	567.5	563.1	534.8	466.7	412.2	384.6	366.6	342.3	321.7	297.4	276.4
15°	568.7	563.5	528.2	456.8	397.5	364.0	336.4	307.3	277.1	252.5	231.1
17.5°	600.3	596.6	553.6	466.0	385.0	338.6	295.6	258.0	224.9	194.0	174.8
20°	653.7	648.2	588.5	477.0	369.2	309.5	251.0	199.5	163.8	136.5	121.5
22.5°	723.2	712.9	638.2	490.6	353.3	276.4	202.8	145.4	113.7	100.1	96.1
25°	797.6	789.5	698.2	507.9	336.4	240.3	150.2	105.6	94.6	89.1	86.1
27.5°	866.0	852.8	762.6	527.1	314.0	204.3	114.1	90.9	83.5	81.0	79.1
30°	915.0	903.6	807.2	549.1	294.4	166.7	97.5	82.4	76.6	72.5	71.8
32.5°	961.7	945.5	839.5	559.4	278.3	146.5	90.2	76.6	71.0	67.0	65.5
35°	1016.9	1000.8	876.7	560.9	266.1	138.0	83.2	72.1	66.3	62.6	60.7
37.5°	1082.1	1060.0	918.7	562.0	254.0	134.7	77.3	68.5	62.6	58.5	57.0
40°	1143.9	1127.0	961.7	560.2	245.9	129.9	73.6	64.4	58.9	55.2	53.4
42.5°	1190.7	1172.6	998.5	554.7	241.1	121.8	75.1	61.5	56.3	52.3	50.1
45°	1214.6	1198.4	1032.0	549.5	238.5	114.8	73.6	60.4	54.5	49.7	47.5
47.5°	1232.6	1216.8	1066.3	547.3	234.1	109.7	67.7	64.4	52.6	47.1	44.9
50°	1261.7	1248.1	1112.6	559.8	227.1	106.4	62.2	68.8	51.9	44.9	42.3
52.5°	1314.0	1305.1	1189.2	588.9	219.7	100.8	56.7	65.9	52.6	43.4	40.5
55°	1411.5	1406.0	1294.5	627.2	212.7	93.9	50.8	59.6	52.3	40.9	38.6
57.5°	1516.8	1515.3	1422.2	660.7	202.4	82.1	47.1	50.4	49.7	38.6	36.1
60°	1587.4	1582.7	1481.1	679.4	189.2	67.7	44.2	42.7	50.8	36.4	33.5
62.5°	1611.7	1595.9	1463.4	672.4	169.3	58.5	40.9	39.0	47.1	34.2	30.9
64°	1610.3	1587.1	1417.4	645.9	156.4	56.7	39.0	36.4	41.6	32.8	29.8
65°	1601.8	1579.7	1379.1	625.3	149.4	56.7	37.9	35.3	37.9	32.0	29.1
67.5°	1547.7	1518.6	1248.5	529.6	131.4	57.4	35.3	32.4	31.7	29.4	27.2
70°	1424.4	1386.5	1069.2	416.6	121.8	57.8	32.4	29.4	28.3	26.9	25.0
72.5°	1143.9	1093.1	851.0	297.8	111.9	56.7	29.4	26.9	25.8	24.3	22.5
75°	767.0	711.5	627.2	196.2	91.6	50.8	25.4	23.2	22.8	21.3	19.9
77.5°	432.5	409.3	370.3	107.8	63.3	35.0	20.2	18.8	19.1	18.4	16.9
80°	226.0	215.3	198.0	52.3	30.5	16.9	12.9	12.9	14.7	14.7	14.0
82.5°	79.9	80.2	77.7	11.8	6.3	5.2	4.4	6.3	8.5	10.3	10.3
85°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.5	2.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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



REPORT NUMBER: P400918

CATALOG NUMBER: ENT-SA1A-730-U-SLR

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2
2.5°	686.1	688.3	694.2	693.1	698.9	696.4	704.1	708.1	710.4	721.8	727.3
5°	562.0	562.8	583.7	588.2	599.2	593.3	606.9	601.8	612.8	614.3	632.7
7.5°	413.0	414.4	424.7	449.0	473.0	482.9	486.9	493.2	488.0	486.2	488.8
10°	314.0	315.1	316.2	333.5	354.4	375.4	375.4	375.8	366.6	357.4	355.5
12.5°	268.3	261.3	250.3	250.6	265.4	275.3	283.0	274.9	273.5	277.9	282.7
15°	220.8	213.8	206.5	197.6	198.0	205.0	209.1	208.7	216.1	219.4	229.3
17.5°	171.5	161.6	161.9	156.8	149.8	154.2	155.3	161.9	171.5	175.9	177.8
20°	115.2	115.2	118.1	124.4	121.1	124.0	124.4	129.6	134.0	131.4	134.0
22.5°	95.3	95.0	96.1	100.1	103.4	106.0	106.7	106.4	102.0	100.1	103.8
25°	86.5	86.1	86.5	88.7	92.4	95.7	94.2	92.0	86.9	86.5	87.2
27.5°	79.1	79.5	80.2	81.7	83.9	88.0	86.5	82.1	79.5	78.8	78.8
30°	72.9	72.9	74.3	75.8	78.4	82.1	79.5	75.8	73.2	72.5	72.1
32.5°	66.6	67.7	68.8	70.3	72.5	76.2	74.0	70.7	68.1	66.6	65.5
35°	60.4	61.1	63.3	65.5	67.4	70.3	68.8	65.9	63.3	60.0	58.5
37.5°	56.7	56.7	57.8	61.1	62.6	64.8	64.0	61.5	57.4	54.8	54.5
40°	53.4	53.4	53.7	55.6	58.2	60.7	59.3	55.2	52.6	51.5	51.2
42.5°	50.1	50.1	50.4	50.4	53.7	58.2	54.5	50.4	49.3	48.6	48.2
45°	47.1	47.1	47.1	46.7	48.6	54.1	50.1	46.7	46.0	46.0	45.6
47.5°	44.9	44.5	44.2	43.4	44.5	49.0	45.6	43.8	43.4	43.8	43.4
50°	42.0	41.6	41.2	40.9	41.6	43.4	42.7	40.9	41.2	41.2	41.6
52.5°	39.4	39.0	38.6	38.3	39.0	40.5	40.5	39.0	39.0	39.4	39.8
55°	37.9	37.2	36.8	36.8	37.2	39.0	38.6	37.5	37.5	38.3	38.6
57.5°	35.7	35.0	35.0	34.6	35.3	37.5	37.2	36.1	36.1	36.4	37.2
60°	33.5	33.1	32.8	33.5	33.9	36.1	35.7	35.0	34.6	35.7	35.7
62.5°	30.9	30.9	30.9	31.7	32.0	34.6	34.2	33.9	33.9	34.2	33.9
64°	29.4	29.4	29.8	30.2	30.9	33.1	33.1	33.1	33.1	33.1	32.8
65°	28.7	28.7	29.4	29.8	30.2	32.8	32.4	32.8	33.1	32.8	32.0
67.5°	26.9	26.9	28.0	28.0	28.3	31.3	30.9	31.7	32.4	31.7	30.9
70°	24.7	25.0	26.1	25.8	26.5	29.8	28.7	30.2	31.7	30.5	29.8
72.5°	22.5	22.8	24.3	23.6	23.9	28.0	26.5	28.0	30.2	29.4	28.7
75°	20.2	20.6	21.7	21.3	22.1	25.8	24.3	25.8	28.0	28.0	27.6
77.5°	17.3	18.0	18.8	18.4	19.9	23.2	21.7	22.8	24.7	26.1	25.4
80°	14.0	15.1	15.5	15.8	17.3	19.9	18.8	19.1	21.0	22.1	22.5
82.5°	9.6	11.4	12.1	12.5	14.7	15.5	15.8	15.5	16.6	18.0	16.9
85°	2.9	3.7	7.0	8.8	11.0	11.0	12.9	12.1	12.9	11.4	9.6
87.5°	0.0	0.0	0.0	2.6	6.6	6.6	9.2	8.5	8.8	6.6	5.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P400918

CATALOG NUMBER: ENT-SA1A-730-U-SLR

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2
2.5°	728.4	734.6	748.6	764.8	773.7	792.8	804.6	817.1	829.6	832.2	836.2
5°	636.4	643.7	659.6	681.3	703.0	728.4	757.8	789.1	823.7	838.4	852.8
7.5°	495.8	497.2	519.7	559.1	578.2	614.3	656.2	704.5	757.8	785.4	814.9
10°	366.2	381.3	398.2	431.0	479.2	520.8	572.7	629.0	684.6	724.7	755.3
12.5°	287.8	307.0	334.9	371.0	407.4	446.8	506.8	567.2	635.6	671.7	709.2
15°	237.0	261.3	297.8	335.7	369.5	404.5	457.9	531.8	619.4	656.2	689.7
17.5°	187.7	214.6	253.6	293.3	333.8	376.5	438.4	530.0	636.7	679.4	714.0
20°	143.9	164.9	197.6	237.8	285.2	343.8	422.9	544.0	687.9	741.3	764.1
22.5°	106.7	118.9	144.6	186.6	242.6	314.7	407.4	563.9	751.2	813.8	831.1
25°	88.3	91.6	103.4	139.9	197.6	281.9	395.7	589.6	814.5	884.8	897.3
27.5°	79.5	81.3	86.9	100.5	154.6	255.1	380.2	619.4	881.1	955.1	954.0
30°	71.8	72.1	75.5	85.0	125.5	231.1	362.2	652.6	940.4	1005.5	1002.2
32.5°	64.8	64.8	69.2	76.6	107.1	209.4	340.5	676.5	991.9	1046.8	1036.1
35°	58.5	59.6	63.7	71.0	95.0	185.1	320.2	685.3	1036.1	1096.4	1066.3
37.5°	54.1	55.6	59.6	66.6	84.7	167.1	303.6	695.6	1090.6	1156.4	1100.1
40°	51.2	52.3	55.9	61.8	76.6	152.0	285.6	702.6	1144.7	1220.5	1135.8
42.5°	48.2	49.3	53.0	58.5	72.9	134.3	268.3	706.7	1201.0	1276.1	1165.6
45°	45.6	47.1	50.8	55.9	73.2	118.5	254.0	705.2	1234.8	1316.2	1188.8
47.5°	43.8	45.3	49.3	55.9	71.0	109.3	241.8	700.0	1259.9	1342.3	1199.5
50°	42.0	43.4	48.2	61.8	67.4	106.7	232.6	699.3	1286.0	1347.5	1199.5
52.5°	40.1	42.7	48.6	62.2	61.8	105.6	225.3	718.8	1322.1	1356.3	1210.2
55°	39.0	41.2	50.1	57.4	54.1	102.0	220.8	745.7	1382.8	1404.9	1263.9
57.5°	37.5	39.4	49.3	53.7	48.2	93.5	217.2	771.5	1462.7	1495.1	1371.0
60°	35.7	37.9	47.8	46.0	43.8	79.5	214.9	792.8	1492.5	1553.2	1486.2
62.5°	33.9	36.4	52.3	40.1	40.5	66.3	210.9	813.4	1429.5	1539.2	1560.2
64°	32.8	35.3	48.6	37.5	38.6	60.4	206.8	814.5	1374.0	1506.1	1574.2
65°	32.0	34.2	45.3	36.1	37.2	58.9	203.2	799.1	1321.7	1470.8	1570.1
67.5°	30.9	32.4	35.0	33.5	34.6	56.3	178.1	731.0	1210.5	1379.9	1507.2
70°	29.4	30.5	30.9	30.5	32.4	54.5	150.5	634.2	1089.1	1284.5	1409.3
72.5°	28.0	28.0	28.0	27.6	29.8	51.9	135.4	512.3	941.1	1159.4	1287.5
75°	26.9	25.8	25.4	24.7	27.2	50.4	122.2	384.6	727.3	965.8	1078.8
77.5°	24.7	23.6	22.5	21.7	24.3	44.9	102.0	271.6	536.3	702.6	832.5
80°	21.3	20.6	19.1	18.0	20.2	35.3	77.3	167.8	392.4	474.4	546.2
82.5°	17.3	16.9	15.5	14.0	14.7	25.4	52.6	85.4	261.7	257.6	305.1
85°	10.7	13.3	11.4	9.2	9.9	14.7	21.3	27.2	80.2	48.2	74.7
87.5°	6.3	8.5	7.0	4.8	3.7	6.6	5.9	5.5	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



REPORT NUMBER: P400918

CATALOG NUMBER: ENT-SA1A-730-U-SLR

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2
2.5°	845.8	850.6	853.2	843.6	833.3	824.1	806.4	788.8	779.5	781.4
5°	880.4	888.5	890.7	876.7	847.6	817.8	774.8	737.6	715.1	713.7
7.5°	867.1	893.6	898.1	883.0	841.4	785.8	727.3	675.4	652.9	647.8
10°	820.0	860.5	873.8	868.6	828.1	764.5	693.4	627.5	605.1	594.4
12.5°	771.8	814.1	822.2	827.4	802.7	749.0	671.0	603.2	576.4	567.5
15°	740.2	769.2	771.5	776.2	771.1	741.6	681.3	613.2	580.8	568.7
17.5°	735.8	725.4	718.5	728.4	734.6	742.0	708.1	650.4	615.8	600.3
20°	736.5	704.5	684.6	683.9	710.7	751.6	762.6	712.9	668.0	653.7
22.5°	763.4	693.4	660.3	656.2	689.0	767.8	818.2	787.3	742.4	723.2
25°	803.5	686.8	643.0	644.1	676.9	778.4	865.7	861.6	822.2	797.6
27.5°	842.1	697.8	640.8	643.7	680.9	785.4	905.1	931.6	887.4	866.0
30°	873.0	722.5	647.4	650.0	693.4	795.0	924.6	993.8	940.4	915.0
32.5°	899.9	745.7	657.4	659.2	713.3	808.6	943.0	1046.0	991.9	961.7
35°	924.2	765.6	672.4	678.7	738.7	828.1	961.7	1102.7	1054.9	1016.9
37.5°	945.5	789.9	702.3	712.6	775.9	856.5	986.0	1177.4	1125.2	1082.1
40°	957.7	811.6	746.4	761.9	824.1	893.3	1016.9	1226.0	1192.5	1143.9
42.5°	966.9	841.4	817.5	845.4	898.8	927.9	1031.7	1247.7	1232.3	1190.7
45°	971.7	900.3	924.2	950.3	983.1	965.8	1023.6	1255.1	1250.3	1214.6
47.5°	993.4	989.0	1047.9	1083.9	1082.1	1022.8	1008.1	1254.3	1262.1	1232.6
50°	1037.6	1092.4	1174.8	1210.2	1196.6	1076.2	1005.2	1253.2	1285.6	1261.7
52.5°	1090.2	1195.8	1312.1	1326.9	1298.1	1130.3	1027.3	1272.4	1329.8	1314.0
55°	1159.4	1293.0	1420.0	1424.8	1384.3	1182.9	1074.4	1328.7	1412.2	1411.5
57.5°	1255.8	1380.2	1510.5	1504.6	1447.6	1255.8	1150.2	1413.0	1503.9	1516.8
60°	1360.7	1472.2	1583.8	1580.4	1519.7	1339.7	1254.3	1537.8	1584.1	1587.4
62.5°	1461.2	1557.6	1654.4	1638.6	1570.1	1426.6	1398.6	1670.3	1636.4	1611.7
64°	1526.7	1586.3	1672.5	1647.4	1582.3	1468.2	1481.8	1713.3	1651.1	1610.3
65°	1570.1	1593.3	1668.4	1638.2	1578.2	1483.6	1544.7	1731.3	1653.7	1601.8
67.5°	1648.2	1553.2	1558.7	1534.8	1481.1	1469.3	1647.8	1721.4	1625.3	1547.7
70°	1626.5	1391.6	1315.8	1300.7	1236.3	1302.6	1634.9	1627.9	1519.0	1424.4
72.5°	1441.0	1117.4	1008.5	994.9	905.4	987.1	1410.8	1386.5	1222.3	1143.9
75°	1187.4	846.9	720.3	731.7	663.6	739.1	1122.2	950.0	813.8	767.0
77.5°	921.6	598.5	497.6	484.0	470.4	478.5	771.5	570.5	475.5	432.5
80°	587.4	376.2	373.2	341.2	330.1	278.3	396.4	303.6	238.9	226.0
82.5°	312.1	216.8	246.2	197.3	158.6	114.1	134.3	90.2	76.2	79.9
85°	85.4	44.9	12.5	0.0	0.0	0.0	0.0	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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