

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: P401403

Luminaire Tested: **ENC-SA1C-830-U-SLR-HSS**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P401403
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENC-SA1C-830-U-SLR-HSS
Description: ENTRI LED LUMINAIRE
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2695 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 33.3
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

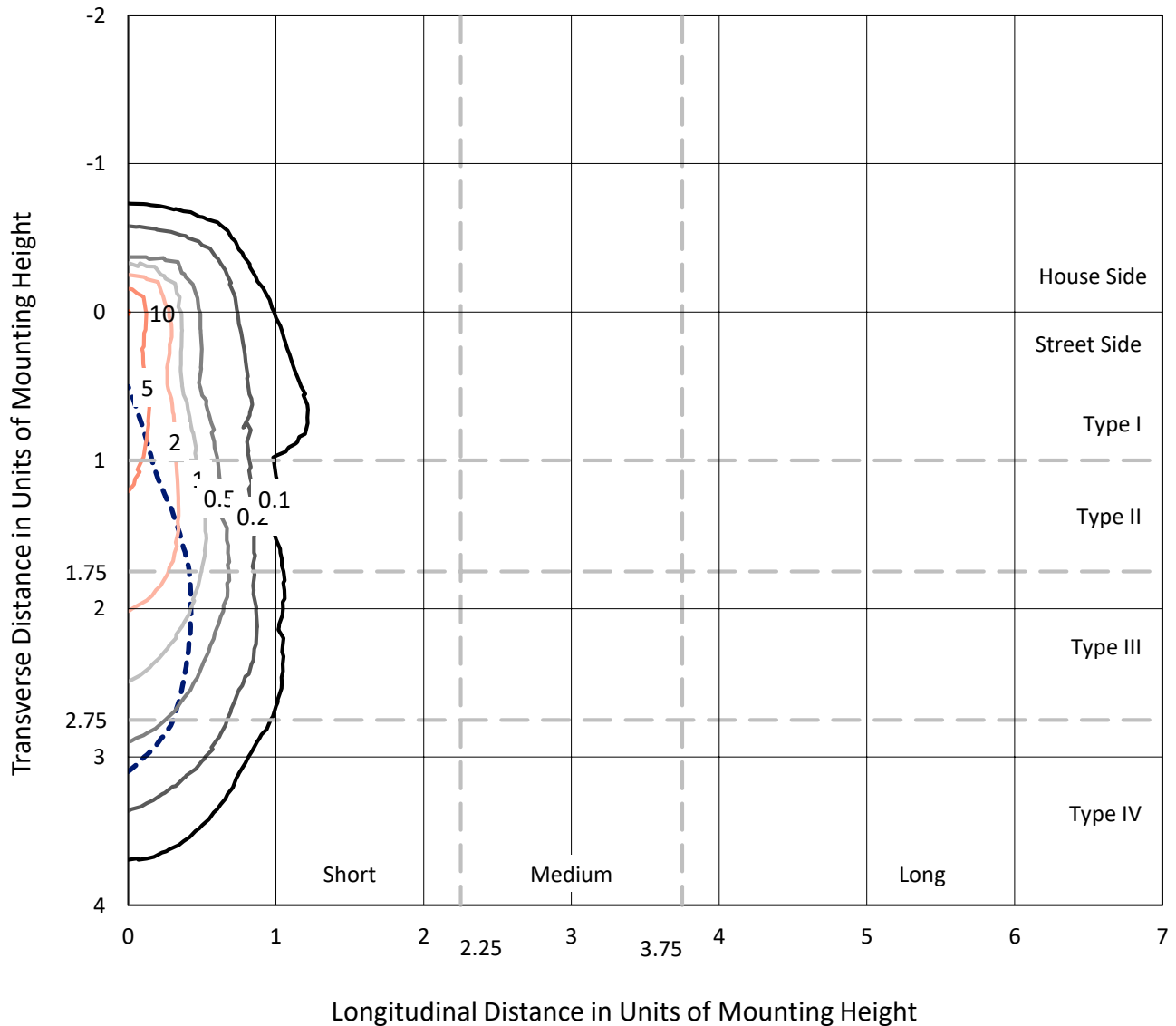


REPORT NUMBER: P401403

CATALOG NUMBER: ENC-SA1C-830-U-SLR-HSS

Iso-Footcandle Lines of Horizontal Illumination

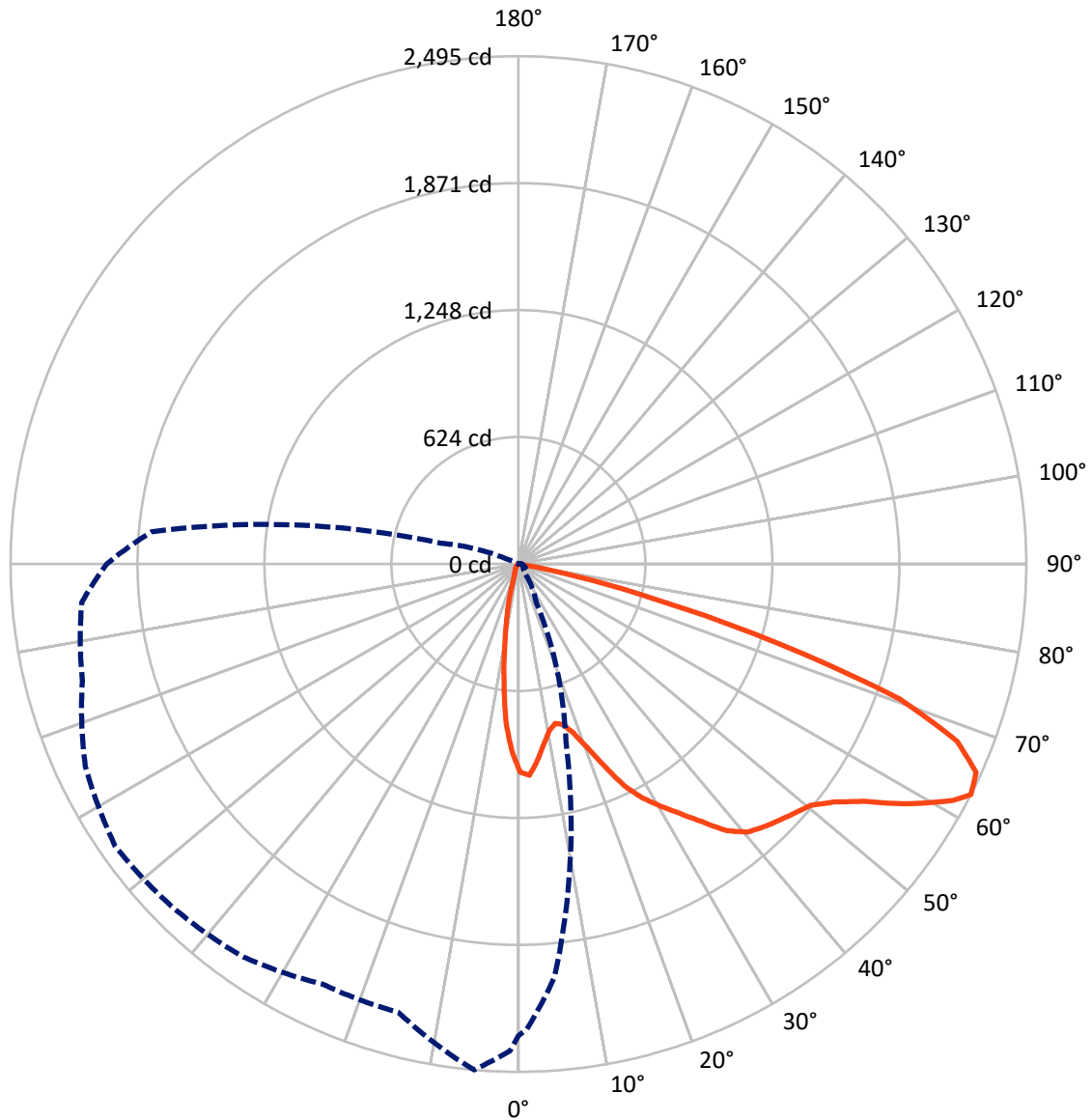
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.2 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P401403
CATALOG NUMBER: ENC-SA1C-830-U-SLR-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 355-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

REPORT NUMBER: P401403

CATALOG NUMBER: ENC-SA1C-830-U-SLR-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	379.1	0.0	379.1
	% Fixture	14.1	0.0	14.1
Street Side	Lumens	2315.9	0.0	2315.9
	% Fixture	85.9	0.0	85.9
Total	Lumens	2695.0	0.0	2695.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.7	2.8
10°-20°	145.7	5.4
20°-30°	202.8	7.5
30°-40°	293.2	10.9
40°-50°	420.4	15.6
50°-60°	610.0	22.6
60°-70°	659.9	24.5
70°-80°	266.5	9.9
80°-90°	19.7	0.7
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°	2695.0	100.0
0°-180°	2695.0	100.0

Coefficient of Utilization



REPORT NUMBER: P401403

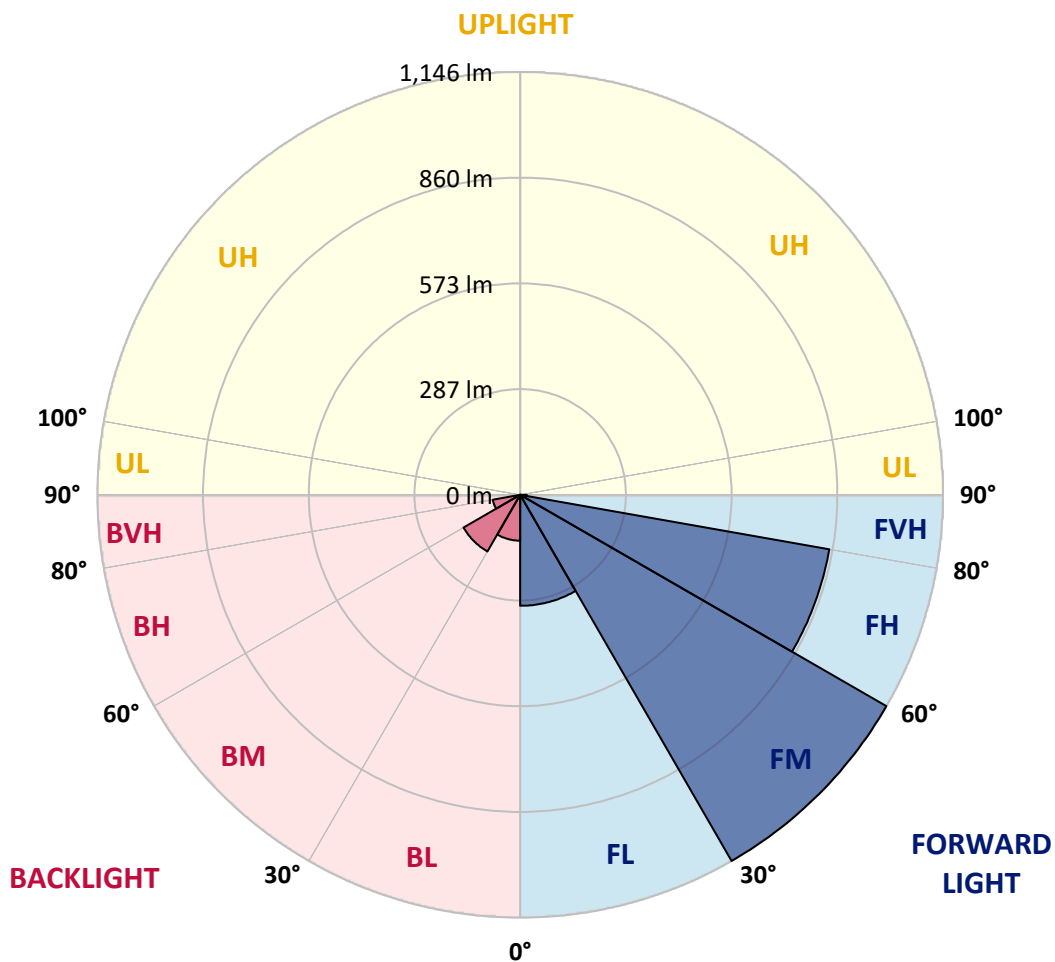
CATALOG NUMBER: ENC-SA1C-830-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	300.8	11.2			
FM (30°-60°)	1146.3	42.5			
FH (60°-80°)	851.1	31.6			G1/1800
FVH (80°-90°)	17.7	0.7			G1/100
BL (0°-30°)	124.3	4.6	B1/500		
BM (30°-60°)	177.4	6.6	B0/220		
BH (60°-80°)	75.4	2.8	B0/110		G0/110
BVH (80°-90°)	2.0	0.1			G0/10
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: P401403

CATALOG NUMBER: ENC-SA1C-830-U-SLR-HSS

CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3
2.5°	1026.5	1022.3	1012.7	991.9	962.0	942.8	930.5	914.6	898.0	892.7	882.0
5°	936.9	930.0	916.7	864.4	817.5	770.6	737.0	705.0	694.3	673.0	685.8
7.5°	850.6	847.4	816.4	748.7	674.0	613.8	575.4	528.5	514.6	492.7	475.1
10°	782.8	780.2	742.8	654.3	573.8	523.7	493.3	462.9	432.5	401.5	377.0
12.5°	748.7	742.8	699.6	604.2	529.5	487.9	455.9	415.4	382.9	341.3	311.4
15°	754.0	748.7	699.1	596.2	508.2	450.6	403.1	355.2	309.3	268.2	238.9
17.5°	796.7	794.6	734.3	603.1	482.6	406.3	342.9	278.4	224.0	179.7	154.6
20°	879.9	873.5	786.0	618.1	455.9	355.2	268.2	188.8	143.4	113.1	102.4
22.5°	982.8	968.4	867.6	639.9	430.3	300.2	194.1	126.9	102.4	90.7	83.2
25°	1103.9	1104.4	968.9	669.2	404.7	249.0	136.0	100.8	86.4	77.9	71.5
27.5°	1202.0	1194.5	1060.1	698.6	377.0	204.2	114.1	88.0	75.7	66.7	62.9
30°	1274.5	1263.3	1120.4	718.8	341.3	172.8	102.4	83.7	71.5	61.3	56.5
32.5°	1349.2	1335.3	1174.8	730.0	320.0	157.8	90.7	73.1	64.0	59.7	53.3
35°	1436.6	1424.4	1235.0	729.0	308.8	149.3	82.1	66.1	54.4	47.5	43.2
37.5°	1534.2	1509.1	1297.4	724.2	300.8	145.0	74.7	61.3	50.7	43.2	37.9
40°	1617.9	1592.9	1355.0	717.8	295.4	140.8	70.4	58.1	48.0	40.0	34.7
42.5°	1683.5	1659.5	1408.9	709.8	292.8	131.7	72.5	56.0	45.9	37.9	32.0
45°	1740.0	1715.5	1472.9	708.7	291.7	125.3	71.5	55.5	44.8	35.2	29.9
47.5°	1805.6	1792.8	1557.1	726.3	287.4	120.5	65.6	59.7	44.3	34.1	28.3
50°	1902.7	1891.5	1667.5	778.6	281.0	115.7	59.7	55.6	44.3	33.1	26.7
52.5°	2038.7	2025.9	1841.4	846.8	275.2	110.4	53.9	51.1	44.8	31.5	25.6
55°	2179.5	2177.3	2005.6	919.3	269.8	98.7	47.5	47.1	43.7	29.3	24.0
57.5°	2289.8	2288.2	2128.8	968.4	259.7	79.5	43.2	43.7	40.5	26.7	21.9
60°	2335.2	2321.8	2142.1	968.4	236.2	65.6	39.5	39.5	41.1	24.0	19.2
61°	2335.2	2318.1	2118.1	954.0	224.5	62.4	37.3	37.3	42.1	22.9	18.1
62.5°	2317.0	2288.8	2036.0	902.3	205.8	62.4	34.1	30.9	38.4	21.9	16.5
65°	2236.5	2190.1	1843.5	784.4	186.6	64.0	29.3	26.1	27.7	18.7	14.4
67.5°	2037.6	1985.3	1593.9	620.7	171.2	67.7	24.5	22.9	21.3	16.5	12.8
70°	1678.7	1634.5	1300.6	465.0	158.9	68.8	21.3	19.2	18.1	14.4	11.2
72.5°	1072.9	999.9	812.2	315.2	127.5	59.7	17.6	18.1	16.5	11.7	9.1
75°	518.3	538.6	472.5	158.9	85.9	38.9	13.9	14.9	13.3	10.7	8.0
77.5°	232.0	227.7	225.6	40.5	21.9	13.3	8.5	10.1	10.7	9.6	6.9
80°	24.0	32.5	19.2	12.3	8.0	5.9	4.8	5.3	6.4	6.9	3.7
82.5°	1.1	0.5	0.5	1.6	1.6	1.1	0.0	0.0	1.1	1.1	0.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P401403

CATALOG NUMBER: ENC-SA1C-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3
2.5°	872.4	886.8	880.4	878.8	887.4	883.1	895.9	896.4	906.0	918.8	926.8
5°	685.8	674.6	697.0	711.9	730.6	724.7	747.1	744.4	756.7	777.0	769.0
7.5°	476.2	477.8	489.5	502.9	553.0	563.1	570.6	576.5	575.9	580.7	589.3
10°	364.2	355.2	347.2	365.8	385.6	407.4	410.6	418.6	396.7	405.8	410.1
12.5°	298.1	287.4	269.8	260.2	265.0	277.8	283.2	288.0	275.2	275.7	285.3
15°	226.1	211.7	204.8	192.0	187.2	186.1	188.8	181.8	180.2	174.4	178.1
17.5°	147.2	142.9	139.2	136.5	132.8	131.7	122.1	105.6	96.0	93.9	93.9
20°	98.1	94.9	94.9	100.3	98.7	94.4	81.6	67.7	60.8	58.7	59.7
22.5°	80.5	78.4	75.2	75.2	77.3	74.1	62.4	52.3	47.5	47.5	47.5
25°	69.9	68.8	65.6	62.4	63.5	60.8	50.7	44.3	41.1	40.5	41.1
27.5°	61.3	60.8	57.1	53.9	53.9	51.7	43.7	37.9	35.7	34.7	35.2
30°	55.5	54.4	50.1	47.5	46.9	44.8	37.3	33.1	30.9	30.4	30.4
32.5°	51.2	49.1	45.3	42.7	41.1	37.9	32.5	28.3	26.1	25.6	25.6
35°	41.1	41.1	39.5	37.9	35.7	30.9	27.2	23.5	21.3	20.8	20.8
37.5°	35.7	33.6	30.9	31.5	30.4	26.1	22.4	18.7	17.1	16.5	16.5
40°	32.5	29.9	26.1	24.5	25.1	22.9	18.7	14.4	12.3	12.8	12.3
42.5°	29.3	27.2	22.9	19.2	18.7	19.2	14.4	10.1	8.5	8.5	8.5
45°	27.2	25.1	20.3	16.0	13.3	14.9	11.2	6.9	5.3	5.3	5.3
47.5°	25.6	23.5	18.1	13.3	9.6	10.1	8.0	4.3	3.2	2.1	2.7
50°	24.5	21.9	16.5	10.7	6.9	5.9	5.3	2.1	0.5	0.5	0.0
52.5°	22.9	20.8	14.9	9.1	5.3	3.7	2.7	0.5	0.0	0.0	0.0
55°	21.9	19.2	13.3	8.0	4.3	2.1	0.5	0.0	0.0	0.0	0.0
57.5°	19.7	17.6	11.7	6.4	3.2	1.1	0.0	0.0	0.0	0.0	0.0
60°	17.6	16.0	10.1	4.8	2.1	0.0	0.0	0.0	0.0	0.0	0.0
61°	16.5	14.9	9.6	4.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	15.5	13.9	8.5	3.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0
65°	13.3	11.7	7.5	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	11.7	10.7	6.4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	10.1	9.1	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	8.5	8.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	7.5	6.4	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	5.9	5.3	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	3.2	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P401403

CATALOG NUMBER: ENC-SA1C-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3
2.5°	934.3	952.9	970.5	992.9	1005.2	1038.8	1062.8	1083.1	1099.1	1102.3	1115.1
5°	790.3	816.4	833.5	880.4	906.6	962.5	1005.7	1056.9	1102.8	1127.9	1150.8
7.5°	595.1	607.9	637.3	684.2	746.0	794.6	867.6	932.1	1014.8	1060.1	1102.8
10°	420.2	431.9	475.1	524.2	580.7	662.3	750.8	835.6	919.3	977.5	1027.6
12.5°	295.4	333.8	376.5	438.9	494.3	554.1	648.5	747.6	852.2	907.6	962.0
15°	194.1	228.2	287.4	365.8	435.1	493.3	581.3	697.5	830.3	892.2	943.9
17.5°	96.0	121.1	173.3	257.6	349.8	441.5	547.7	688.4	858.6	928.4	976.9
20°	60.3	67.7	86.9	145.6	251.7	387.2	522.6	706.6	935.3	1012.7	1044.1
22.5°	48.5	50.7	58.1	77.3	153.6	320.0	500.7	731.1	1019.6	1114.0	1146.5
25°	41.6	43.2	47.5	57.1	89.1	240.0	474.1	774.3	1117.7	1231.8	1239.8
27.5°	35.7	37.3	41.1	48.5	63.5	161.6	435.7	825.0	1235.0	1335.3	1330.0
30°	30.4	32.5	36.3	41.6	50.1	109.3	364.2	876.2	1321.4	1402.0	1393.4
32.5°	26.1	27.7	30.9	35.7	41.6	75.2	273.6	909.8	1393.4	1464.9	1446.2
35°	21.3	22.9	25.6	29.9	33.6	53.3	206.9	910.8	1467.5	1542.7	1495.8
37.5°	17.1	18.1	20.8	24.5	27.7	41.6	152.0	893.2	1559.3	1644.1	1552.3
40°	12.8	14.4	17.1	20.3	23.5	35.2	113.6	850.6	1648.9	1745.4	1620.6
42.5°	8.5	10.7	13.3	16.5	22.4	28.3	80.0	779.6	1721.4	1835.5	1687.3
45°	5.3	6.9	10.1	13.9	22.9	22.4	53.3	694.8	1773.1	1904.3	1732.6
47.5°	2.7	4.3	7.5	13.3	20.3	16.5	33.1	613.8	1820.0	1944.3	1753.4
50°	0.5	1.6	5.3	16.5	17.1	12.3	21.9	563.1	1844.6	1934.2	1751.2
52.5°	0.0	0.0	3.7	16.0	12.3	9.6	17.1	555.7	1883.0	1947.5	1788.0
55°	0.0	0.0	1.6	6.9	6.9	8.0	14.9	545.5	1951.2	2026.9	1899.0
57.5°	0.0	0.0	0.0	3.2	4.3	6.4	13.9	518.9	2023.2	2111.2	2033.9
60°	0.0	0.0	0.0	1.6	2.7	5.3	12.3	458.1	1957.1	2111.7	2145.9
61°	0.0	0.0	0.0	1.6	2.1	4.8	11.2	436.7	1897.9	2077.6	2159.7
62.5°	0.0	0.0	0.0	0.5	1.6	3.7	9.6	394.6	1809.4	2022.7	2153.3
65°	0.0	0.0	0.0	0.0	0.5	2.1	7.5	318.9	1661.7	1884.6	2079.7
67.5°	0.0	0.0	0.0	0.0	0.0	0.5	4.8	224.5	1449.4	1728.3	1922.4
70°	0.0	0.0	0.0	0.0	0.0	0.0	2.1	130.1	1167.9	1463.3	1646.7
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	59.2	757.8	1130.0	1299.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.1	466.6	816.4	970.5
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2	316.2	543.4	653.3
80°	0.0	1.1	0.5	0.0	0.0	0.0	0.0	4.3	194.6	339.2	368.5
82.5°	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	100.8	239.4	244.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.1	50.7
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: P401403

CATALOG NUMBER: ENC-SA1C-830-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

	285°	295°	305°	315°	325°	335°	345°	355°	359°	360°
0°	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3	1022.3
2.5°	1126.8	1130.0	1132.1	1128.4	1105.5	1092.7	1067.1	1038.8	1029.2	1026.5
5°	1192.4	1210.5	1207.3	1182.8	1142.8	1093.7	1032.9	970.0	946.0	936.9
7.5°	1179.6	1227.0	1236.1	1210.5	1142.8	1056.9	968.9	894.3	859.6	850.6
10°	1114.5	1174.3	1203.0	1195.0	1131.6	1032.4	924.1	832.4	794.6	782.8
12.5°	1051.6	1109.2	1127.3	1133.7	1099.1	1013.2	901.8	803.1	763.6	748.7
15°	1009.5	1045.2	1044.1	1055.9	1053.2	1005.7	916.1	818.0	773.8	754.0
17.5°	995.6	984.9	971.1	980.7	999.3	1007.9	963.1	871.4	819.6	796.7
20°	1004.1	951.9	921.5	920.9	960.4	1025.5	1031.9	959.3	910.8	879.9
22.5°	1047.9	935.3	888.4	889.5	938.0	1051.6	1111.3	1074.5	1021.2	982.8
25°	1112.4	938.5	875.6	882.0	935.9	1074.5	1197.2	1205.7	1137.5	1103.9
27.5°	1178.0	966.3	876.2	883.1	944.9	1086.8	1246.2	1302.2	1243.6	1202.0
30°	1223.8	1000.4	885.8	893.2	959.3	1096.4	1264.9	1381.7	1320.9	1274.5
32.5°	1267.0	1035.6	901.2	908.7	988.1	1116.1	1300.1	1461.7	1395.0	1349.2
35°	1309.2	1070.3	930.0	943.3	1034.5	1151.9	1335.8	1555.5	1500.1	1436.6
37.5°	1345.4	1108.7	979.6	1007.9	1097.5	1206.8	1384.4	1662.2	1605.1	1534.2
40°	1375.8	1154.0	1082.0	1113.5	1193.4	1264.9	1438.2	1732.0	1694.2	1617.9
42.5°	1400.4	1234.0	1228.6	1272.9	1328.9	1331.6	1453.7	1765.6	1751.2	1683.5
45°	1441.4	1377.4	1421.2	1493.7	1489.9	1411.6	1449.4	1796.6	1797.6	1740.0
47.5°	1508.6	1557.1	1683.5	1732.6	1707.5	1520.9	1453.7	1827.0	1851.0	1805.6
50°	1604.6	1760.8	1926.2	1991.2	1918.2	1630.7	1491.5	1863.2	1935.8	1902.7
52.5°	1686.7	1915.0	2150.1	2208.3	2108.5	1748.0	1580.1	1941.6	2049.3	2038.7
55°	1804.0	2047.7	2309.6	2354.4	2274.4	1880.8	1699.0	2056.8	2174.1	2179.5
57.5°	1924.0	2167.7	2413.6	2458.9	2398.1	2046.1	1868.0	2222.1	2291.4	2289.8
60°	2057.3	2279.7	2460.5	2485.5	2450.9	2211.5	2049.9	2373.6	2372.0	2335.2
61°	2133.6	2315.4	2457.3	2464.8	2431.2	2260.0	2143.7	2431.7	2383.7	2335.2
62.5°	2217.9	2348.0	2417.8	2392.8	2356.5	2277.0	2279.7	2495.1	2391.7	2317.0
65°	2303.2	2266.4	2236.0	2116.0	2081.9	2120.3	2394.4	2471.2	2343.2	2236.5
67.5°	2157.1	1942.2	1876.6	1756.0	1621.1	1777.9	2285.6	2324.5	2179.5	2037.6
70°	1763.0	1427.0	1349.2	1344.9	1247.8	1420.1	2015.7	1987.5	1808.8	1678.7
72.5°	1381.7	973.7	867.6	892.2	873.0	1058.5	1648.9	1333.7	1159.9	1072.9
75°	1083.1	692.2	597.3	593.0	572.2	721.0	1207.3	702.8	580.2	518.3
77.5°	714.6	498.6	497.0	459.1	443.1	390.9	541.8	281.6	229.8	232.0
80°	411.7	305.6	358.4	284.2	284.8	229.3	219.2	41.1	33.1	24.0
82.5°	236.2	146.6	110.9	43.7	91.7	91.7	17.6	0.5	0.5	1.1
85°	22.9	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
87.5°	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

(END OF REPORT)