

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: McGRAW-EDISON

Report Number: P299704

Luminaire Tested: **GLNA-AF-02-LED-E1-SL2-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299704
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-SL2-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6036.1 lumens
Efficiency: N/A
Efficacy: 91.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 66
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

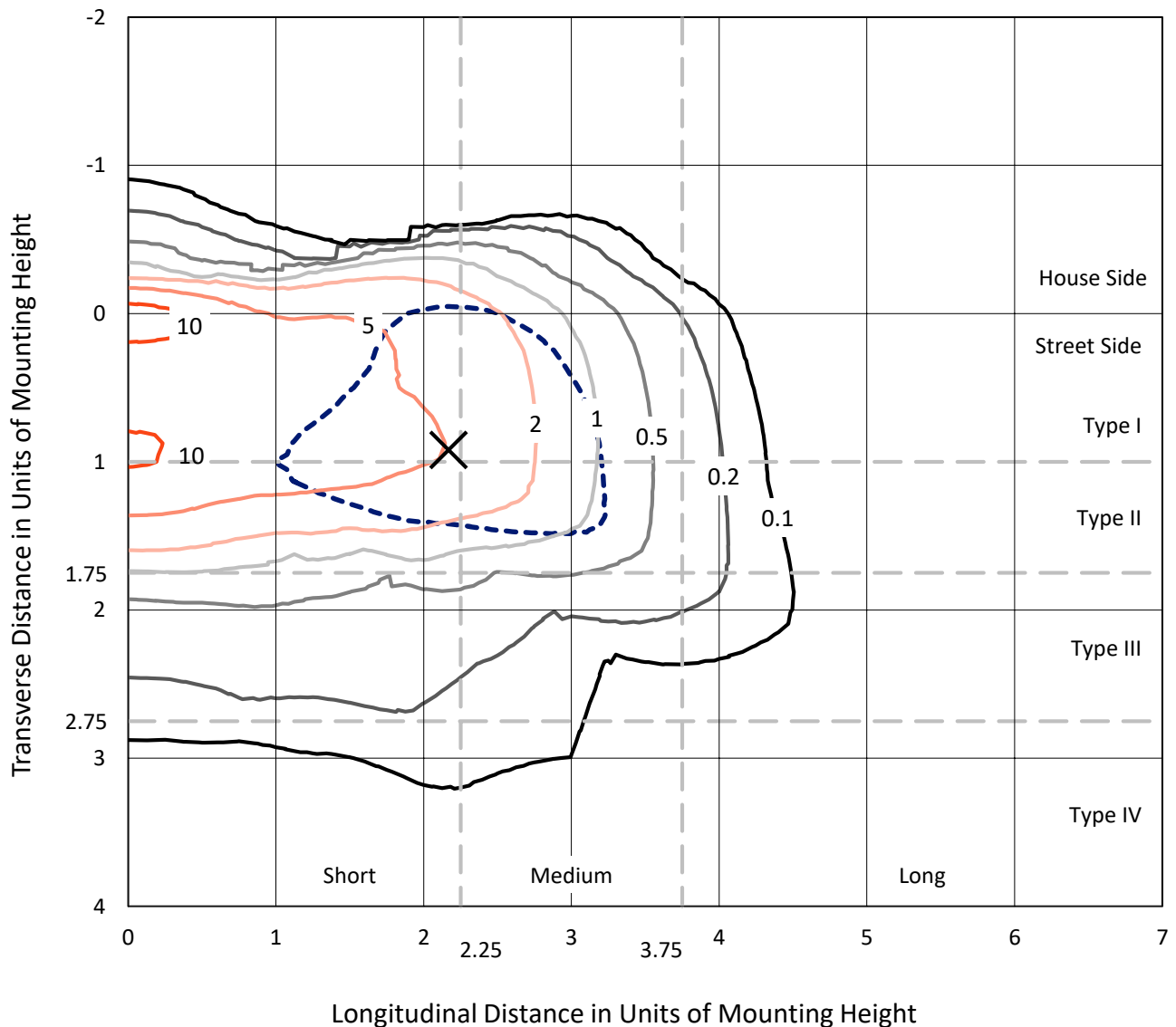


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

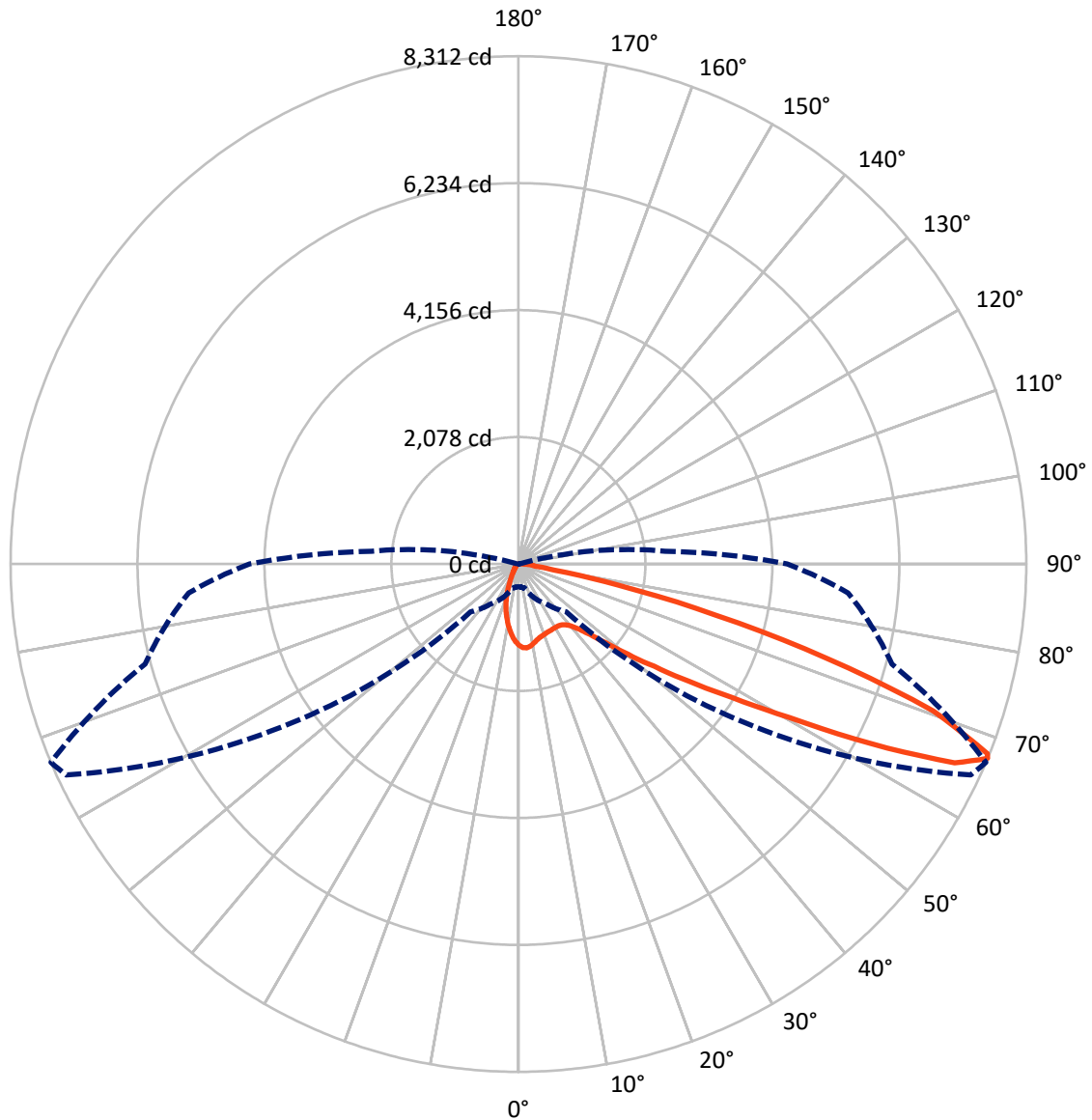


Based on 10 foot mounting height. Maximum calculated value = 13.3 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	626.7	0.0	626.7
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	5409.4	0.0	5409.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	6036.1	0.0	6036.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.3	1.8
10°-20°	230.5	3.8
20°-30°	335.2	5.6
30°-40°	522.9	8.7
40°-50°	926.3	15.3
50°-60°	1465.8	24.3
60°-70°	1678.8	27.8
70°-80°	696.4	11.5
80°-90°	71.9	1.2
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°	6036.1	100.0
0°-180°	6036.1	100.0



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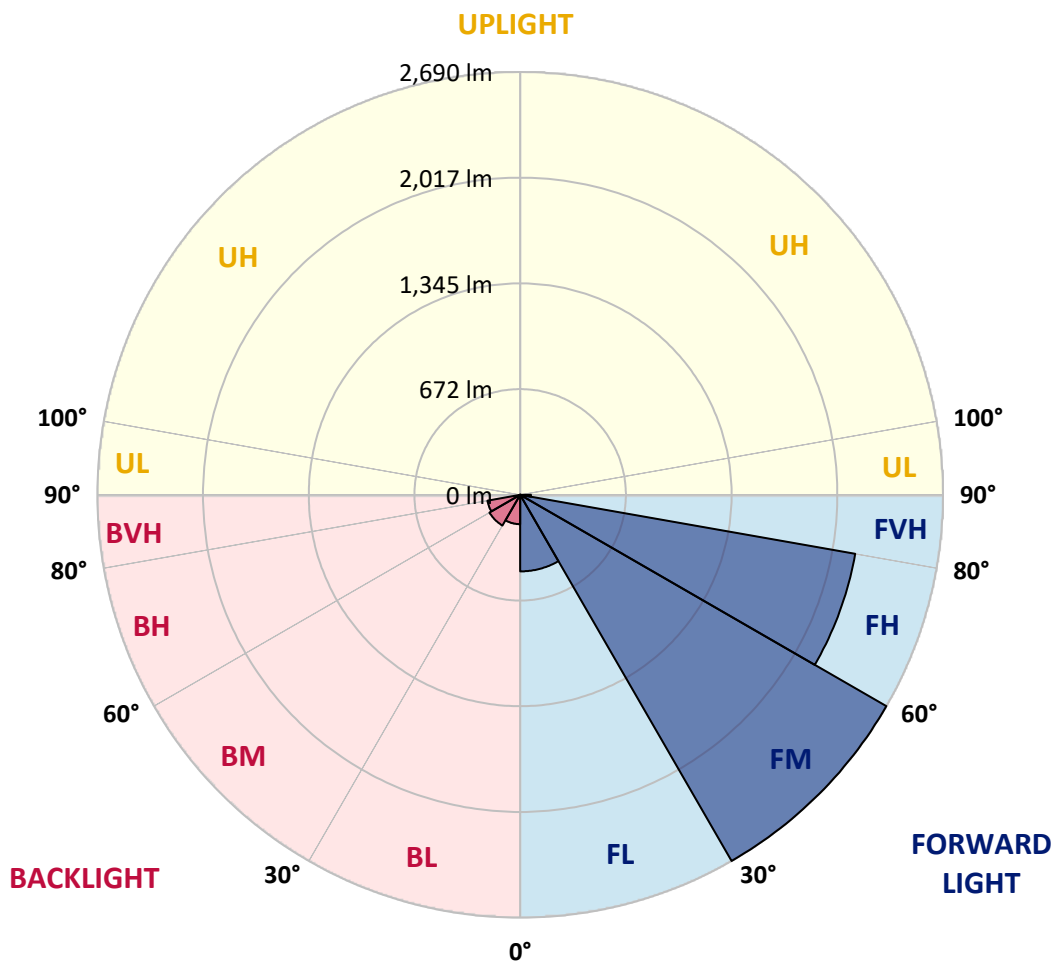
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	487.0	8.1			
FM (30°-60°)	2689.7	44.6			
FH (60°-80°)	2164.0	35.9			G2/5000
FVH (80°-90°)	68.7	1.1			G1/100
BL (0°-30°)	187.0	3.1	B1/500		
BM (30°-60°)	225.2	3.7	B1/1000		
BH (60°-80°)	211.2	3.5	B1/500		G1/500
BVH (80°-90°)	3.2	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-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2
2.5°	1376.3	1379.1	1378.7	1380.8	1385.8	1386.1	1381.2	1371.7	1369.6	1357.2	1335.8
5°	1269.2	1277.3	1282.3	1302.3	1324.9	1352.0	1372.4	1379.8	1378.7	1369.9	1337.5
7.5°	1147.1	1155.2	1160.8	1184.4	1214.3	1260.8	1313.9	1357.6	1361.5	1371.0	1336.1
10°	1065.7	1067.1	1074.9	1097.4	1128.7	1176.3	1239.6	1316.0	1327.7	1362.5	1332.6
12.5°	998.8	999.9	1010.1	1034.4	1067.8	1115.7	1182.3	1270.6	1288.6	1352.0	1331.9
15°	951.3	955.2	964.3	989.7	1025.2	1072.8	1141.1	1237.2	1258.7	1348.1	1338.2
17.5°	935.5	939.7	942.5	960.8	993.2	1039.7	1109.7	1215.4	1239.6	1350.2	1350.6
20°	952.0	955.2	948.8	953.4	973.5	1015.0	1083.3	1196.7	1225.6	1352.7	1366.4
22.5°	1013.6	1015.0	997.8	977.7	974.2	997.1	1062.6	1181.9	1212.9	1359.4	1385.1
25°	1119.2	1116.8	1088.6	1045.3	1004.5	993.9	1050.2	1172.8	1206.6	1366.4	1404.4
27.5°	1246.7	1250.2	1211.5	1148.5	1070.7	1015.0	1048.5	1168.9	1203.7	1371.3	1421.3
30°	1401.6	1406.5	1362.2	1283.0	1171.3	1067.1	1064.7	1168.2	1202.0	1368.2	1422.7
32.5°	1559.7	1565.7	1530.8	1449.1	1305.8	1154.4	1101.3	1175.9	1205.5	1357.2	1414.6
35°	1725.2	1733.6	1710.4	1640.3	1488.2	1280.5	1165.7	1199.5	1222.0	1356.2	1406.5
37.5°	1953.7	1961.4	1917.7	1843.5	1709.0	1449.5	1269.2	1243.9	1261.1	1373.1	1408.6
40°	2294.8	2293.8	2181.1	2067.4	1951.5	1664.2	1414.6	1324.1	1332.9	1424.1	1434.7
42.5°	2666.6	2664.8	2498.3	2325.4	2220.9	1928.7	1605.8	1462.9	1456.9	1518.1	1502.3
45°	2953.2	2952.8	2816.9	2622.2	2545.1	2232.1	1853.0	1655.8	1646.6	1670.9	1626.9
47.5°	3075.4	3077.5	3009.2	2872.2	2904.6	2642.7	2164.5	1935.3	1921.6	1911.8	1844.9
50°	2980.3	2984.5	2990.2	2963.4	3168.3	3194.4	2582.5	2329.3	2322.6	2278.6	2174.1
52.5°	2669.8	2691.2	2757.4	2842.3	3259.8	3723.9	3237.7	2818.7	2782.8	2736.0	2620.8
55°	2146.6	2170.2	2295.9	2501.8	3123.6	4071.7	4155.9	3449.6	3389.8	3250.0	3083.8
57.5°	1420.6	1457.2	1639.6	1901.5	2727.9	4127.7	5072.0	4325.2	4116.8	3734.1	3546.8
60°	782.7	817.9	1015.7	1253.0	1970.2	3851.0	5688.1	5465.2	5097.0	4275.2	4109.0
62.5°	482.0	501.0	647.1	867.9	1181.6	3039.4	5815.5	6897.8	6471.5	4972.0	4788.2
65°	383.8	391.9	463.3	709.4	847.1	1807.9	5404.0	7989.9	7847.7	5815.5	5396.2
67°	372.5	375.7	409.5	609.1	798.5	1108.3	4527.3	8167.7	8312.1	6326.1	5415.2
67.5°	375.0	378.5	410.5	581.3	797.1	1018.5	4225.2	8097.7	8280.1	6366.5	5331.1
70°	361.6	372.5	470.0	580.9	758.0	846.4	2530.3	7016.1	7205.9	5915.5	4523.4
72.5°	128.2	128.9	203.1	470.0	824.2	855.5	1270.6	5143.4	5283.9	4525.2	3261.3
75°	76.0	64.8	67.6	133.8	787.6	830.9	733.0	3286.6	3339.1	2593.0	1651.6
77.5°	52.5	45.8	47.2	59.1	300.0	819.3	582.3	1713.9	1657.9	909.4	351.7
80°	29.9	26.4	28.2	51.8	109.1	764.4	549.2	695.0	592.5	154.2	97.2
82.5°	15.8	13.4	16.2	42.6	76.0	476.4	550.3	335.9	266.2	52.1	66.2
85°	5.6	4.6	7.7	29.2	50.7	146.1	510.2	282.4	221.8	25.3	50.3
87.5°	1.1	1.1	3.2	12.0	20.4	44.7	301.7	167.6	112.3	15.1	34.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2	1331.2
2.5°	1327.0	1311.8	1291.4	1266.4	1236.8	1210.8	1191.4	1171.3	1167.1	1160.1	1159.0
5°	1318.2	1292.1	1241.4	1183.3	1121.4	1065.4	1020.0	979.5	961.5	946.0	944.3
7.5°	1305.1	1266.1	1179.8	1086.1	989.3	901.3	826.7	773.9	725.3	702.0	698.5
10°	1290.0	1234.0	1110.4	980.5	846.7	722.5	611.6	518.6	462.3	428.8	424.6
12.5°	1275.9	1202.7	1039.7	871.0	693.2	527.1	384.5	295.7	236.6	212.7	209.8
15°	1269.2	1177.3	973.5	759.1	532.7	335.5	210.2	162.7	143.3	137.7	137.3
17.5°	1268.5	1155.9	908.7	643.2	373.2	195.0	137.0	125.0	121.1	119.7	119.7
20°	1268.2	1135.4	843.9	523.2	236.9	129.9	114.1	111.3	108.4	106.7	106.7
22.5°	1272.0	1117.1	776.3	400.7	149.3	105.3	100.3	97.5	94.0	91.5	91.2
25°	1275.9	1103.0	707.3	285.2	108.1	91.5	86.6	82.7	77.8	74.6	74.3
27.5°	1276.6	1085.4	633.4	190.8	90.5	79.9	73.6	67.6	62.0	58.8	58.4
30°	1266.1	1055.9	551.3	128.9	79.9	69.4	60.9	54.6	49.3	46.8	46.8
32.5°	1245.3	1019.3	461.2	97.2	71.1	59.5	50.3	44.4	40.8	39.8	39.4
35°	1226.6	979.8	368.6	82.4	63.7	50.3	41.2	37.3	35.2	34.9	34.5
37.5°	1215.7	948.1	281.7	74.6	56.7	42.2	34.9	32.0	31.0	30.3	30.6
40°	1224.2	921.7	208.1	68.3	49.6	35.2	29.6	28.2	27.1	26.8	26.8
42.5°	1261.1	917.2	154.6	62.7	43.0	29.2	25.7	24.6	23.9	23.6	23.9
45°	1358.3	945.3	120.1	57.4	36.3	24.6	21.8	21.5	21.1	21.1	21.1
47.5°	1504.4	1003.4	100.0	51.4	30.3	21.1	19.0	18.7	18.3	18.7	18.7
50°	1751.9	1109.7	89.4	45.4	25.0	18.0	16.2	16.2	16.2	16.2	16.5
52.5°	2128.3	1318.9	82.4	39.4	20.4	15.1	13.7	13.7	14.1	14.1	14.4
55°	2547.6	1596.3	76.0	33.4	17.3	12.7	11.3	11.6	12.0	12.3	12.3
57.5°	3002.5	1903.7	70.8	27.5	14.8	10.2	9.5	9.9	10.2	10.9	10.9
60°	3551.4	2236.4	63.0	21.5	12.3	8.1	7.4	8.1	9.2	9.9	10.2
62.5°	4154.1	2558.2	53.2	16.9	10.2	6.3	6.0	7.4	8.8	9.5	9.9
65°	4566.0	2659.2	40.8	13.7	7.7	4.6	4.9	6.7	8.4	9.5	9.5
67°	4399.2	2411.0	33.4	11.6	6.3	3.5	4.6	6.7	8.4	9.2	9.5
67.5°	4283.3	2313.8	32.0	11.3	6.0	3.5	4.6	6.7	8.4	9.5	9.5
70°	3485.2	1738.2	26.8	8.4	4.9	3.2	3.9	6.3	8.1	9.2	9.2
72.5°	2421.6	1071.7	23.9	6.0	4.2	2.8	3.5	6.0	7.7	8.8	9.2
75°	1151.3	388.0	20.4	4.6	3.9	2.5	3.2	6.0	7.7	8.8	8.8
77.5°	234.8	90.1	16.5	3.9	3.2	2.5	2.8	5.6	7.4	8.4	8.4
80°	77.1	34.9	12.3	3.5	3.2	2.5	2.8	5.3	7.4	8.1	8.4
82.5°	55.6	17.6	8.1	3.5	3.2	2.5	2.5	5.3	7.0	8.1	8.1
85°	42.6	12.3	5.3	3.5	3.2	2.5	2.5	4.9	6.7	7.7	7.7
87.5°	28.2	4.9	4.2	3.5	3.2	2.5	2.5	4.9	6.3	7.4	7.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)