

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: P299995

Luminaire Tested: **GLNA-AF-02-LED-E1-SL3-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
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-SL3-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6225.9 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-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

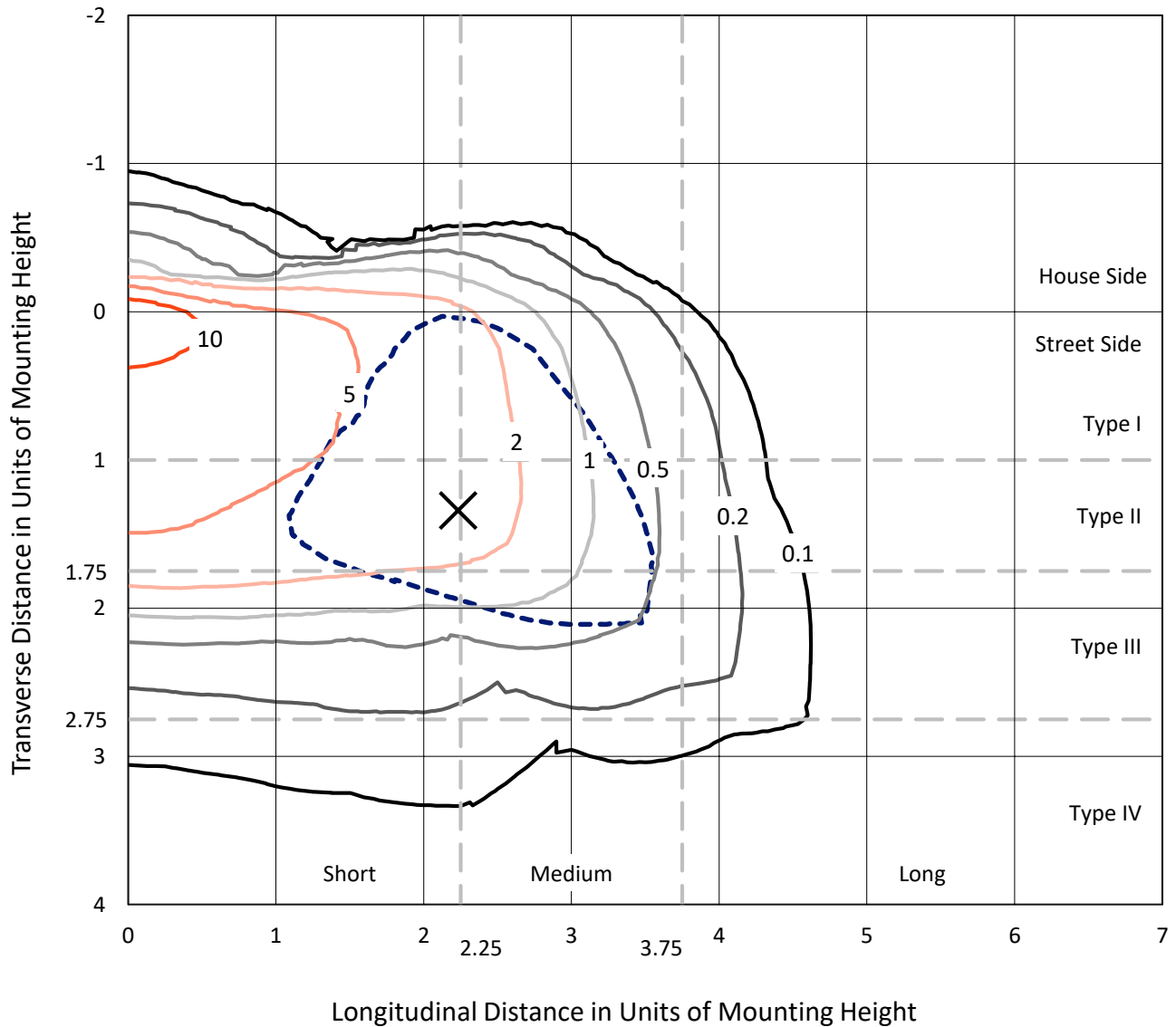


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Iso-Footcandle Lines of Horizontal Illumination

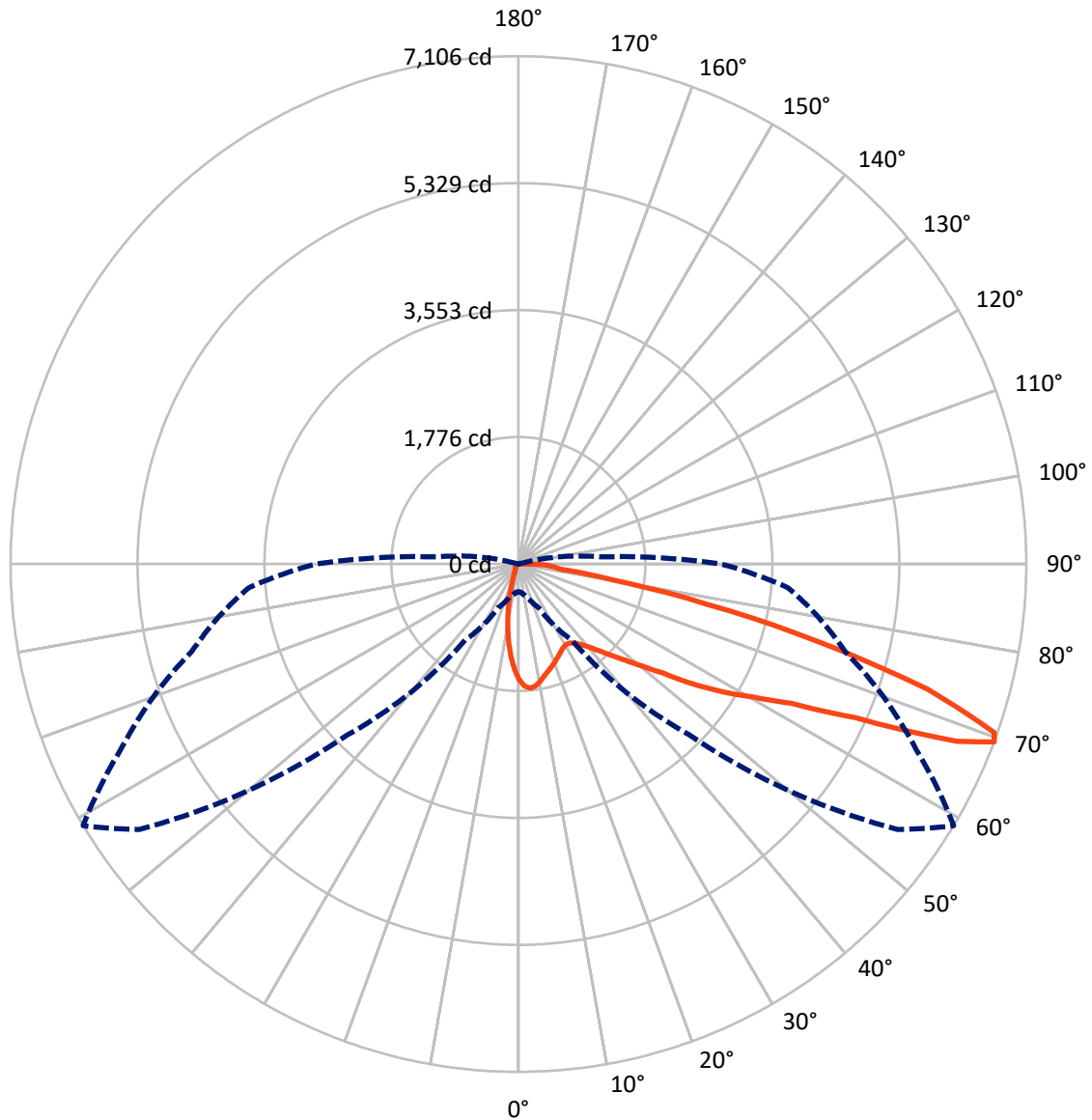
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 16.3 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	507.0	0.0	507.0
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	5718.9	0.0	5718.9
	% Fixture	91.9	0.0	91.9
Total	Lumens	6225.9	0.0	6225.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.5	2.1
10°-20°	271.8	4.4
20°-30°	365.7	5.9
30°-40°	531.0	8.5
40°-50°	884.2	14.2
50°-60°	1379.3	22.2
60°-70°	1706.8	27.4
70°-80°	865.0	13.9
80°-90°	90.5	1.5
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°	6225.9	100.0
0°-180°	6225.9	100.0



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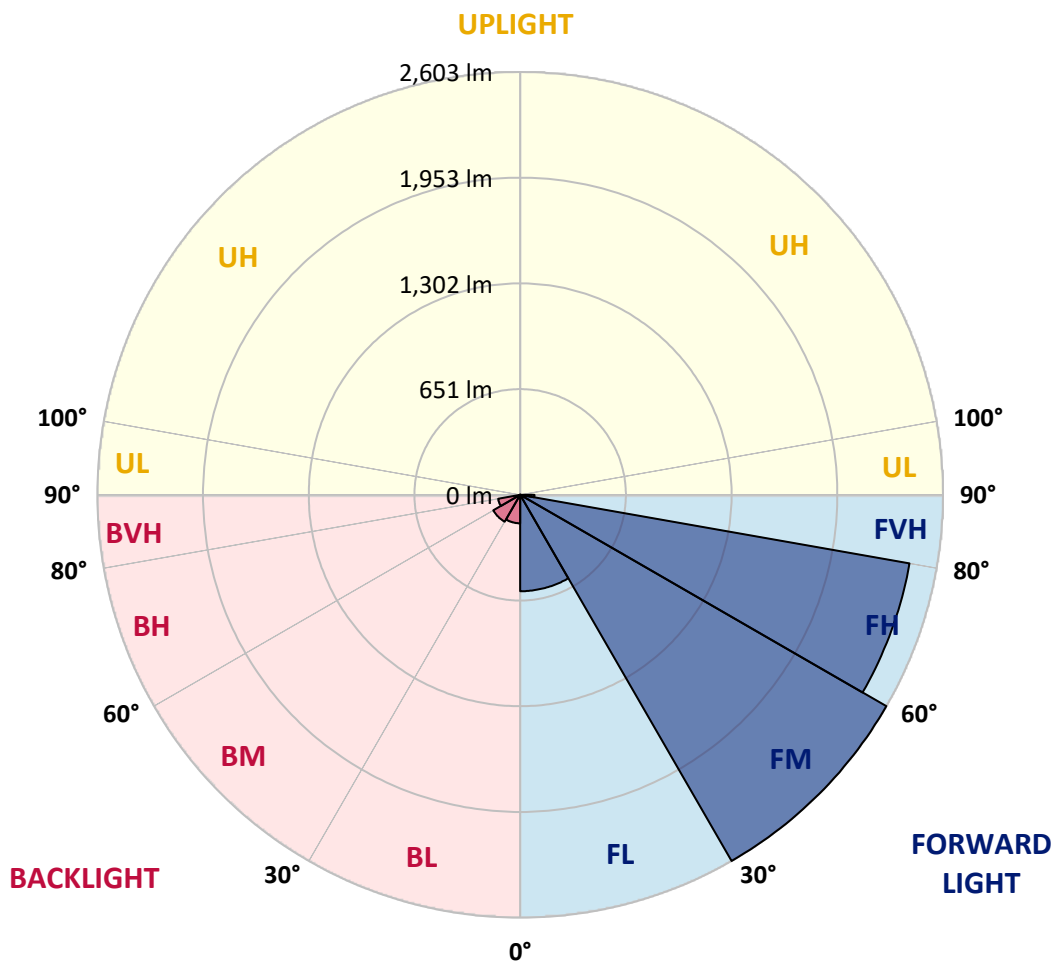
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	593.6	9.5			
FM	(30°-60°)	2603.5	41.8			
FH	(60°-80°)	2434.1	39.1			G2/5000
FVH	(80°-90°)	87.7	1.4			G1/100
BL	(0°-30°)	175.5	2.8	B1/500		
BM	(30°-60°)	191.0	3.1	B0/220		
BH	(60°-80°)	137.7	2.2	B1/500		G1/500
BVH	(80°-90°)	2.8	0.0			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1620.5	1620.5	1620.5	1620.5	1620.5	1620.5	1620.5	1620.5	1620.5	1620.5	1620.5
2.5°	1776.1	1775.5	1767.7	1764.2	1757.8	1744.4	1723.7	1712.8	1695.2	1664.5	1623.4
5°	1759.9	1768.4	1772.9	1773.3	1777.9	1772.9	1754.3	1745.2	1720.9	1671.5	1597.7
7.5°	1650.1	1653.2	1666.3	1677.5	1699.4	1720.1	1726.9	1722.9	1708.5	1655.8	1557.5
10°	1532.5	1535.6	1551.2	1565.9	1595.5	1627.5	1661.3	1668.4	1674.4	1633.2	1518.8
12.5°	1431.1	1434.3	1450.2	1469.4	1504.0	1543.4	1595.9	1607.5	1633.9	1611.7	1487.8
15°	1343.8	1345.2	1360.7	1384.6	1425.8	1476.5	1536.1	1554.7	1595.2	1596.6	1460.7
17.5°	1269.5	1273.0	1282.6	1305.4	1350.5	1413.2	1482.6	1509.3	1556.7	1583.9	1434.3
20°	1224.1	1227.6	1227.3	1240.0	1280.5	1347.3	1429.0	1461.0	1518.8	1570.9	1410.7
22.5°	1215.3	1215.3	1206.2	1204.4	1228.3	1284.3	1373.4	1412.4	1484.6	1565.3	1394.2
25°	1246.7	1245.2	1222.4	1203.7	1204.8	1238.1	1319.5	1365.9	1455.8	1569.1	1385.3
27.5°	1312.9	1311.1	1282.2	1246.7	1218.1	1217.8	1278.6	1328.6	1432.9	1587.4	1388.9
30°	1404.3	1403.7	1372.3	1327.6	1275.9	1228.3	1264.6	1310.0	1418.1	1620.5	1397.0
32.5°	1504.3	1503.2	1479.7	1432.6	1367.0	1275.9	1279.4	1317.4	1422.3	1664.5	1416.7
35°	1610.4	1608.5	1598.3	1557.2	1485.0	1363.5	1328.0	1357.5	1449.1	1730.4	1455.4
37.5°	1725.0	1726.9	1734.2	1694.8	1619.1	1486.4	1409.3	1429.4	1502.9	1819.8	1518.4
40°	1894.4	1894.1	1896.5	1844.7	1771.9	1636.7	1523.0	1529.3	1593.1	1938.4	1614.2
42.5°	2201.7	2180.3	2115.2	2009.5	1936.3	1808.5	1666.3	1659.6	1703.3	2085.2	1748.3
45°	2614.8	2568.9	2400.0	2197.6	2103.9	2002.2	1842.6	1821.2	1849.0	2261.6	1913.8
47.5°	2969.9	2922.4	2683.4	2393.3	2281.7	2185.9	2049.3	2010.6	2019.8	2459.1	2123.6
50°	3090.7	3067.4	2858.7	2563.7	2453.8	2417.2	2289.1	2241.9	2228.9	2687.6	2366.8
52.5°	3048.8	3047.1	2908.0	2674.2	2611.6	2656.6	2590.8	2536.2	2488.3	2928.4	2614.3
55°	2981.5	2990.4	2928.0	2771.0	2768.9	2875.3	3003.4	2958.0	2819.3	3190.0	2827.7
57.5°	2796.1	2833.7	2916.8	2954.1	3040.7	3149.5	3347.0	3373.8	3209.7	3390.3	3004.8
60°	2268.7	2351.4	2623.2	2980.5	3391.0	3662.1	3761.8	3784.6	3530.0	3556.8	3243.8
62.5°	1610.4	1694.8	2039.5	2644.0	3396.3	4335.5	4379.6	4289.8	3882.8	3803.7	3656.1
65°	854.7	920.0	1201.6	1908.5	2944.6	4491.9	5460.1	5192.5	4505.2	4289.1	4188.8
67.5°	437.2	456.9	569.0	934.0	2024.4	3989.9	6428.5	6616.9	5577.9	4770.7	4163.1
69°	386.9	398.5	472.8	675.2	1296.2	3379.4	6475.7	7105.9	6139.6	4730.6	3783.2
70°	374.6	384.8	452.4	611.2	1013.2	2834.0	6295.1	7062.9	6283.1	4577.8	3499.4
72.5°	318.0	326.7	402.8	540.1	823.5	1406.8	5113.6	5985.0	5638.2	3813.5	2533.0
75°	212.6	241.5	386.6	506.3	766.1	799.2	3371.3	4325.0	4017.7	2572.1	1319.5
77.5°	51.1	54.9	109.1	402.8	700.6	703.4	1733.9	2688.6	2193.0	916.8	311.9
80°	27.5	26.4	30.6	79.9	652.3	660.1	780.6	1305.1	783.0	152.1	102.8
82.5°	19.4	18.3	19.7	33.5	205.3	601.3	564.7	590.7	324.6	58.4	46.2
85°	7.0	6.7	10.9	30.3	64.4	345.7	580.2	487.2	263.0	26.8	33.8
87.5°	2.5	2.1	4.3	16.5	19.7	147.2	358.0	368.3	103.5	16.2	15.9
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°	1620.5	1620.5	1620.5	1620.5	1620.5	1620.5	1620.5	1620.5	1620.5	1620.5	1620.5
2.5°	1606.1	1584.2	1544.2	1502.9	1464.9	1419.1	1396.2	1373.7	1364.2	1360.7	1344.2
5°	1559.6	1522.6	1437.5	1351.9	1273.0	1189.2	1134.0	1089.7	1063.6	1050.9	1030.8
7.5°	1500.1	1439.6	1310.3	1178.3	1055.5	934.4	844.6	775.5	728.0	705.2	684.4
10°	1442.4	1361.8	1178.0	998.1	831.2	670.7	546.7	456.9	399.6	373.2	356.3
12.5°	1390.7	1286.1	1050.2	822.4	612.9	425.0	298.9	227.5	191.9	179.5	173.5
15°	1344.5	1216.4	929.5	655.5	415.1	242.9	163.4	139.1	133.5	133.5	132.7
17.5°	1300.8	1148.1	812.9	498.8	260.5	148.6	124.3	121.1	121.1	122.5	122.5
20°	1258.9	1083.0	700.2	358.0	164.0	117.9	112.3	111.6	112.3	114.1	114.1
22.5°	1223.0	1023.8	595.0	245.7	121.8	106.3	103.5	102.4	102.8	103.8	104.6
25°	1196.3	973.8	495.7	166.5	104.9	96.8	93.7	91.9	90.5	90.5	91.1
27.5°	1179.4	931.6	399.6	121.1	94.3	88.0	83.0	80.3	77.1	75.4	76.0
30°	1167.0	891.4	309.4	98.9	84.5	78.1	71.8	67.3	62.7	60.5	61.3
32.5°	1162.5	859.0	231.3	87.3	75.7	68.6	60.9	54.9	50.0	48.2	48.6
35°	1174.8	833.3	169.4	78.9	68.6	59.8	51.1	44.3	40.5	39.4	39.8
37.5°	1207.2	819.6	126.7	71.8	62.4	52.4	42.6	36.2	33.8	33.8	34.1
40°	1268.4	819.2	101.8	66.9	56.7	45.4	35.2	30.6	29.2	30.0	30.3
42.5°	1357.8	837.9	88.7	62.4	51.8	38.7	29.2	26.0	25.7	26.4	26.8
45°	1480.0	872.0	81.6	58.4	46.5	32.4	24.6	22.5	22.5	23.6	24.0
47.5°	1629.6	922.0	75.7	54.6	41.1	27.1	21.1	19.7	20.0	21.1	21.4
50°	1809.9	985.1	69.7	50.3	37.3	22.5	18.3	17.3	17.6	19.0	19.4
52.5°	2015.2	1069.9	64.8	46.5	32.4	18.7	15.5	14.8	15.5	16.9	17.3
55°	2191.2	1145.9	58.8	43.3	26.0	15.5	12.7	12.7	13.4	15.1	15.5
57.5°	2360.5	1225.5	53.5	37.3	20.5	12.4	10.6	10.9	11.9	13.8	14.1
60°	2609.1	1360.3	47.2	31.3	15.5	9.8	8.8	9.2	10.6	12.4	12.7
62.5°	3031.2	1565.6	40.8	26.0	11.9	7.8	7.0	7.8	9.5	11.6	11.9
65°	3412.1	1649.0	33.5	21.9	9.2	6.0	6.0	7.0	9.2	11.3	11.6
67.5°	3199.8	1388.1	26.0	17.3	7.0	4.6	4.9	6.7	8.8	11.3	11.6
69°	2829.8	1135.1	22.2	13.8	6.0	4.3	4.6	6.7	8.8	10.9	11.3
70°	2541.5	958.3	19.7	11.6	5.3	4.3	4.6	6.3	8.8	10.9	11.3
72.5°	1702.2	517.5	15.9	8.4	4.9	3.8	3.8	6.3	8.4	10.6	10.9
75°	731.5	142.9	12.7	6.0	4.3	3.5	3.5	6.0	8.1	10.2	10.9
77.5°	133.8	36.2	10.2	5.3	4.3	3.5	3.2	5.6	7.8	9.8	10.2
80°	53.2	17.9	8.1	4.6	3.8	3.2	2.8	5.3	7.4	9.5	9.8
82.5°	32.1	10.2	6.7	4.3	3.8	2.8	2.5	4.6	7.0	9.2	9.5
85°	26.0	7.0	5.3	4.3	3.5	2.8	2.1	4.3	6.3	8.8	9.2
87.5°	12.7	4.9	4.9	3.8	3.5	2.8	2.1	3.8	6.0	8.4	8.8
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)