

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: P299644

Luminaire Tested: **GLNA-AF-02-LED-E1-SL2-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299644
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-SL2-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 4000K CCT 800mA 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: 7402.4 lumens
Efficiency: N/A
Efficacy: 87.1 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): 85
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

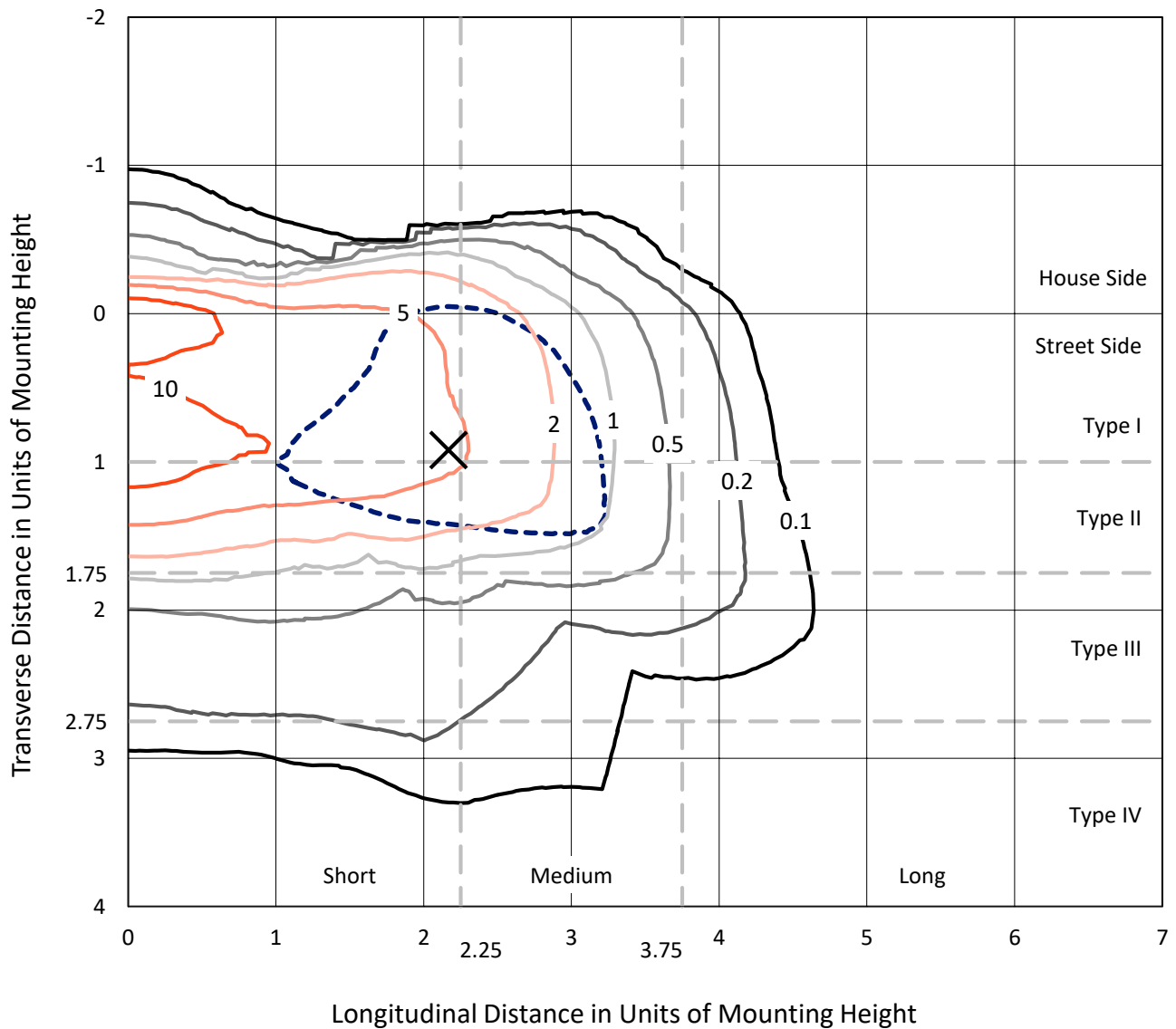


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

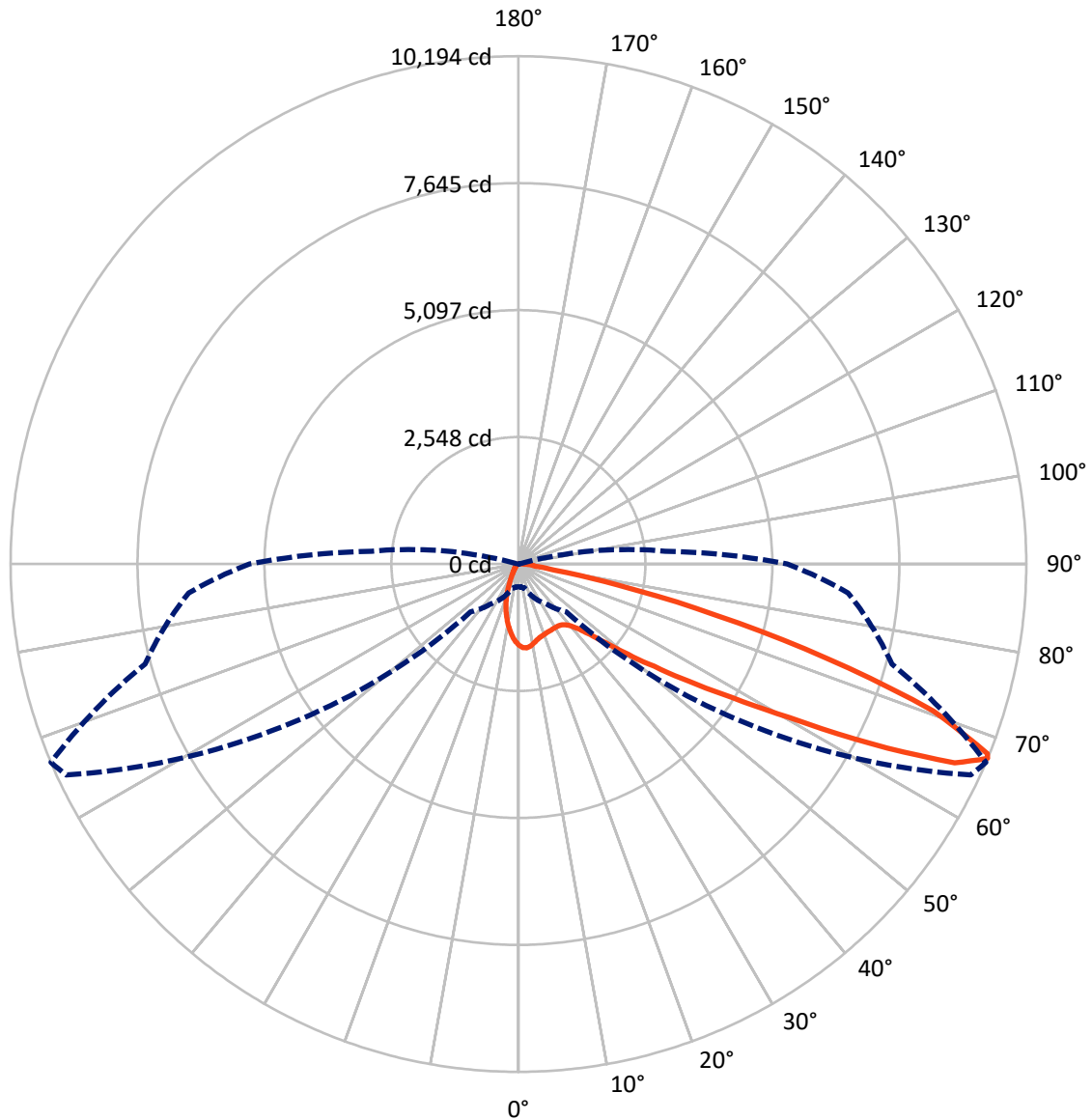


Based on 10 foot mounting height. Maximum calculated value = 16.3 fc
 Type II - Short - Semi-Cutoff

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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	768.6	0.0	768.6
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	6633.9	0.0	6633.9
	% Fixture	89.6	0.0	89.6
Total	Lumens	7402.4	0.0	7402.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.8	1.8
10°-20°	282.7	3.8
20°-30°	411.1	5.6
30°-40°	641.3	8.7
40°-50°	1136.0	15.3
50°-60°	1797.6	24.3
60°-70°	2058.8	27.8
70°-80°	854.0	11.5
80°-90°	88.2	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°	7402.4	100.0
0°-180°	7402.4	100.0



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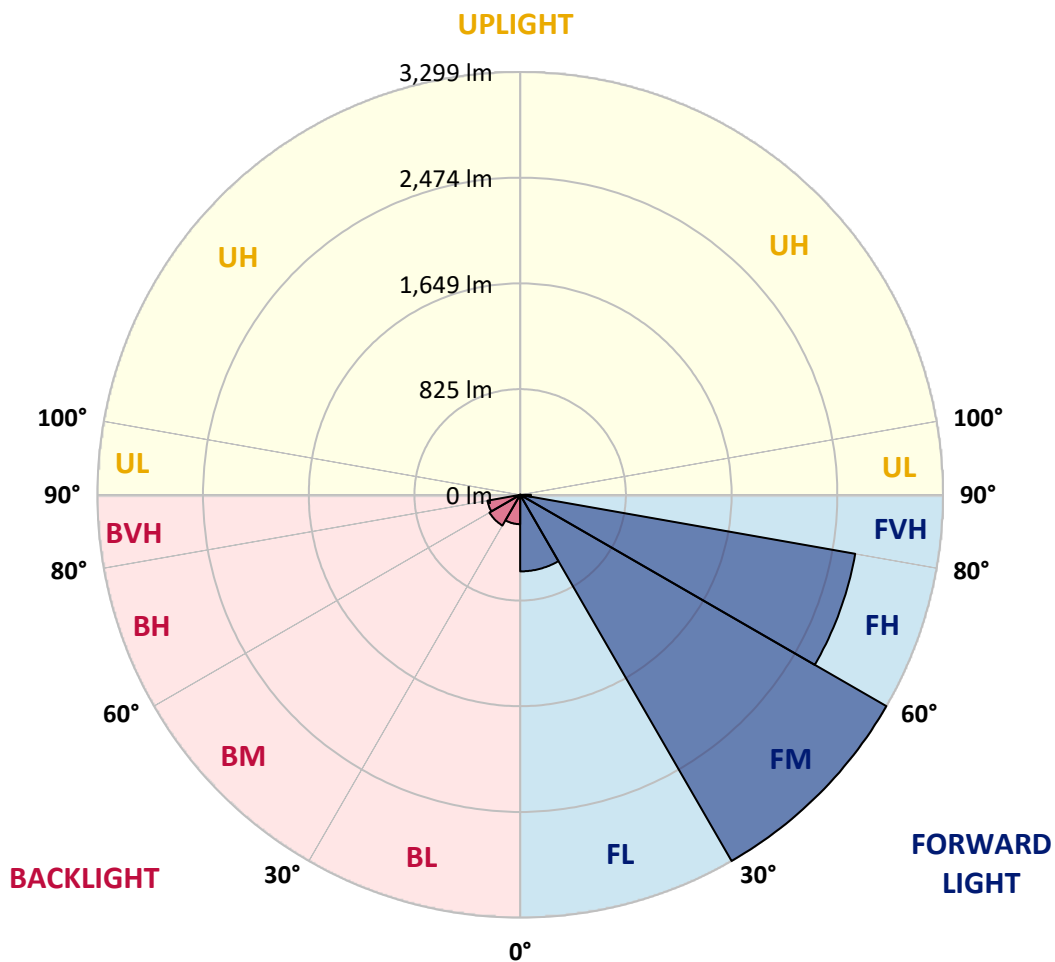
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	597.3	8.1			
FM (30°-60°)	3298.6	44.6			
FH (60°-80°)	2653.8	35.9			G2/5000
FVH (80°-90°)	84.2	1.1			G1/100
BL (0°-30°)	229.4	3.1	B1/500		
BM (30°-60°)	276.2	3.7	B1/1000		
BH (60°-80°)	259.0	3.5	B1/500		G1/500
BVH (80°-90°)	4.0	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-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	1632.5	1632.5	1632.5	1632.5	1632.5	1632.5	1632.5	1632.5	1632.5	1632.5	1632.5
2.5°	1687.8	1691.2	1690.8	1693.4	1699.4	1699.9	1693.8	1682.2	1679.6	1664.5	1638.1
5°	1556.5	1566.5	1572.5	1597.1	1624.7	1658.0	1683.0	1692.1	1690.8	1680.0	1640.3
7.5°	1406.7	1416.6	1423.5	1452.5	1489.2	1546.2	1611.4	1664.9	1669.6	1681.3	1638.6
10°	1307.0	1308.7	1318.2	1345.8	1384.2	1442.5	1520.3	1613.9	1628.2	1670.9	1634.2
12.5°	1224.9	1226.2	1238.7	1268.5	1309.6	1368.3	1449.9	1558.3	1580.3	1658.0	1633.4
15°	1166.6	1171.4	1182.6	1213.7	1257.3	1315.6	1399.4	1517.2	1543.6	1653.2	1641.2
17.5°	1147.2	1152.4	1155.8	1178.3	1218.0	1275.0	1360.9	1490.5	1520.3	1655.8	1656.3
20°	1167.5	1171.4	1163.6	1169.2	1193.8	1244.8	1328.6	1467.6	1503.0	1658.9	1675.7
22.5°	1243.1	1244.8	1223.6	1199.0	1194.7	1222.8	1303.1	1449.4	1487.4	1667.1	1698.6
25°	1372.6	1369.6	1335.0	1281.9	1231.8	1218.9	1288.0	1438.2	1479.7	1675.7	1722.3
27.5°	1528.9	1533.2	1485.7	1408.4	1313.0	1244.8	1285.8	1433.5	1476.2	1681.7	1743.0
30°	1718.9	1724.9	1670.5	1573.4	1436.5	1308.7	1305.7	1432.6	1474.1	1677.9	1744.8
32.5°	1912.7	1920.1	1877.3	1777.2	1601.4	1415.8	1350.6	1442.1	1478.4	1664.5	1734.8
35°	2115.7	2126.0	2097.5	2011.6	1825.1	1570.3	1429.6	1471.0	1498.7	1663.2	1724.9
37.5°	2395.9	2405.4	2351.8	2260.7	2095.8	1777.6	1556.5	1525.4	1546.6	1683.9	1727.5
40°	2814.3	2813.0	2674.8	2535.3	2393.3	2041.0	1734.8	1623.9	1634.7	1746.5	1759.5
42.5°	3270.2	3268.1	3063.8	2851.8	2723.6	2365.2	1969.3	1794.0	1786.7	1861.8	1842.4
45°	3621.7	3621.2	3454.6	3215.8	3121.3	2737.4	2272.4	2030.6	2019.4	2049.2	1995.2
47.5°	3771.5	3774.1	3690.3	3522.4	3562.1	3240.9	2654.5	2373.4	2356.6	2344.5	2262.5
50°	3654.9	3660.1	3667.0	3634.2	3885.5	3917.4	3167.0	2856.6	2848.4	2794.4	2666.2
52.5°	3274.1	3300.4	3381.6	3485.7	3997.7	4566.8	3970.5	3456.7	3412.7	3355.3	3214.1
55°	2632.5	2661.4	2815.6	3068.1	3830.6	4993.4	5096.6	4230.5	4157.1	3985.7	3781.9
57.5°	1742.2	1787.1	2010.7	2332.0	3345.3	5062.0	6220.1	5304.3	5048.7	4579.3	4349.6
60°	959.8	1003.0	1245.7	1536.7	2416.2	4722.7	6975.6	6702.3	6250.7	5243.0	5039.2
62.5°	591.1	614.4	793.6	1064.3	1449.0	3727.5	7131.9	8459.2	7936.3	6097.4	5872.0
65°	470.6	480.6	568.2	870.0	1038.8	2217.1	6627.2	9798.5	9624.1	7131.9	6617.7
67°	456.8	460.7	502.1	747.0	979.2	1359.2	5552.1	10016.6	10193.6	7758.0	6641.0
67.5°	459.8	464.2	503.4	712.8	977.5	1249.1	5181.6	9930.7	10154.3	7807.7	6537.8
70°	443.4	456.8	576.4	712.4	929.6	1038.0	3103.1	8604.3	8837.0	7254.6	5547.4
72.5°	157.2	158.0	249.1	576.4	1010.8	1049.2	1558.3	6307.7	6480.0	5549.5	3999.5
75°	93.3	79.4	82.9	164.1	965.9	1019.0	898.9	4030.6	4094.9	3180.0	2025.4
77.5°	64.3	56.1	57.9	72.5	367.9	1004.7	714.1	2101.8	2033.2	1115.3	431.3
80°	36.7	32.4	34.5	63.5	133.8	937.4	673.6	852.3	726.7	189.1	119.2
82.5°	19.4	16.4	19.9	52.2	93.3	584.2	674.9	411.9	326.4	63.9	81.2
85°	6.9	5.6	9.5	35.8	62.2	179.2	625.6	346.3	272.0	31.1	61.7
87.5°	1.3	1.3	3.9	14.7	25.0	54.8	370.0	205.5	137.7	18.6	42.3
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°	1632.5	1632.5	1632.5	1632.5	1632.5	1632.5	1632.5	1632.5	1632.5	1632.5	1632.5
2.5°	1627.3	1608.8	1583.7	1553.1	1516.8	1484.9	1461.1	1436.5	1431.3	1422.7	1421.4
5°	1616.5	1584.6	1522.4	1451.2	1375.2	1306.5	1250.8	1201.2	1179.2	1160.2	1158.0
7.5°	1600.6	1552.6	1446.9	1332.0	1213.3	1105.3	1013.8	949.0	889.4	860.9	856.6
10°	1582.0	1513.3	1361.8	1202.5	1038.4	886.0	750.0	636.0	566.9	525.9	520.7
12.5°	1564.7	1474.9	1275.0	1068.2	850.2	646.4	471.5	362.7	290.1	260.8	257.3
15°	1556.5	1443.8	1193.8	930.9	653.3	411.5	257.8	199.5	175.7	168.8	168.4
17.5°	1555.7	1417.5	1114.4	788.8	457.7	239.2	168.0	153.3	148.5	146.8	146.8
20°	1555.2	1392.5	1034.9	641.6	290.6	159.3	139.9	136.4	133.0	130.8	130.8
22.5°	1560.0	1370.0	952.0	491.4	183.1	129.1	123.1	119.6	115.3	112.3	111.8
25°	1564.7	1352.7	867.4	349.7	132.6	112.3	106.2	101.5	95.4	91.5	91.1
27.5°	1565.6	1331.1	776.8	234.0	111.0	98.0	90.2	82.9	76.0	72.1	71.7
30°	1552.6	1294.9	676.1	158.0	98.0	85.1	74.7	66.9	60.4	57.4	57.4
32.5°	1527.2	1250.0	565.6	119.2	87.2	73.0	61.7	54.4	50.1	48.8	48.4
35°	1504.3	1201.6	452.1	101.0	78.2	61.7	50.5	45.8	43.2	42.7	42.3
37.5°	1490.9	1162.8	345.4	91.5	69.5	51.8	42.7	39.3	38.0	37.1	37.6
40°	1501.3	1130.4	255.2	83.8	60.9	43.2	36.3	34.5	33.2	32.8	32.8
42.5°	1546.6	1124.8	189.5	76.9	52.7	35.8	31.5	30.2	29.4	28.9	29.4
45°	1665.8	1159.3	147.2	70.4	44.5	30.2	26.8	26.3	25.9	25.9	25.9
47.5°	1844.9	1230.5	122.6	63.0	37.1	25.9	23.3	22.9	22.5	22.9	22.9
50°	2148.5	1360.9	109.7	55.7	30.7	22.0	19.9	19.9	19.9	19.9	20.3
52.5°	2610.0	1617.4	101.0	48.4	25.0	18.6	16.8	16.8	17.3	17.3	17.7
55°	3124.3	1957.6	93.3	41.0	21.2	15.5	13.8	14.2	14.7	15.1	15.1
57.5°	3682.1	2334.6	86.8	33.7	18.1	12.5	11.7	12.1	12.5	13.4	13.4
60°	4355.2	2742.6	77.3	26.3	15.1	9.9	9.1	9.9	11.2	12.1	12.5
62.5°	5094.4	3137.2	65.2	20.7	12.5	7.8	7.3	9.1	10.8	11.7	12.1
65°	5599.6	3261.1	50.1	16.8	9.5	5.6	6.0	8.2	10.4	11.7	11.7
67°	5394.9	2956.7	41.0	14.2	7.8	4.3	5.6	8.2	10.4	11.2	11.7
67.5°	5252.9	2837.6	39.3	13.8	7.3	4.3	5.6	8.2	10.4	11.7	11.7
70°	4274.1	2131.6	32.8	10.4	6.0	3.9	4.7	7.8	9.9	11.2	11.2
72.5°	2969.7	1314.3	29.4	7.3	5.2	3.5	4.3	7.3	9.5	10.8	11.2
75°	1411.9	475.8	25.0	5.6	4.7	3.0	3.9	7.3	9.5	10.8	10.8
77.5°	288.0	110.5	20.3	4.7	3.9	3.0	3.5	6.9	9.1	10.4	10.4
80°	94.6	42.7	15.1	4.3	3.9	3.0	3.5	6.5	9.1	9.9	10.4
82.5°	68.2	21.6	9.9	4.3	3.9	3.0	3.0	6.5	8.6	9.9	9.9
85°	52.2	15.1	6.5	4.3	3.9	3.0	3.0	6.0	8.2	9.5	9.5
87.5°	34.5	6.0	5.2	4.3	3.9	3.0	3.0	6.0	7.8	9.1	9.5
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)