

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-SL3-7027-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-SL3-7027-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 1050mA 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: 8211.3 lumens
Efficiency: N/A
Efficacy: 72.7 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

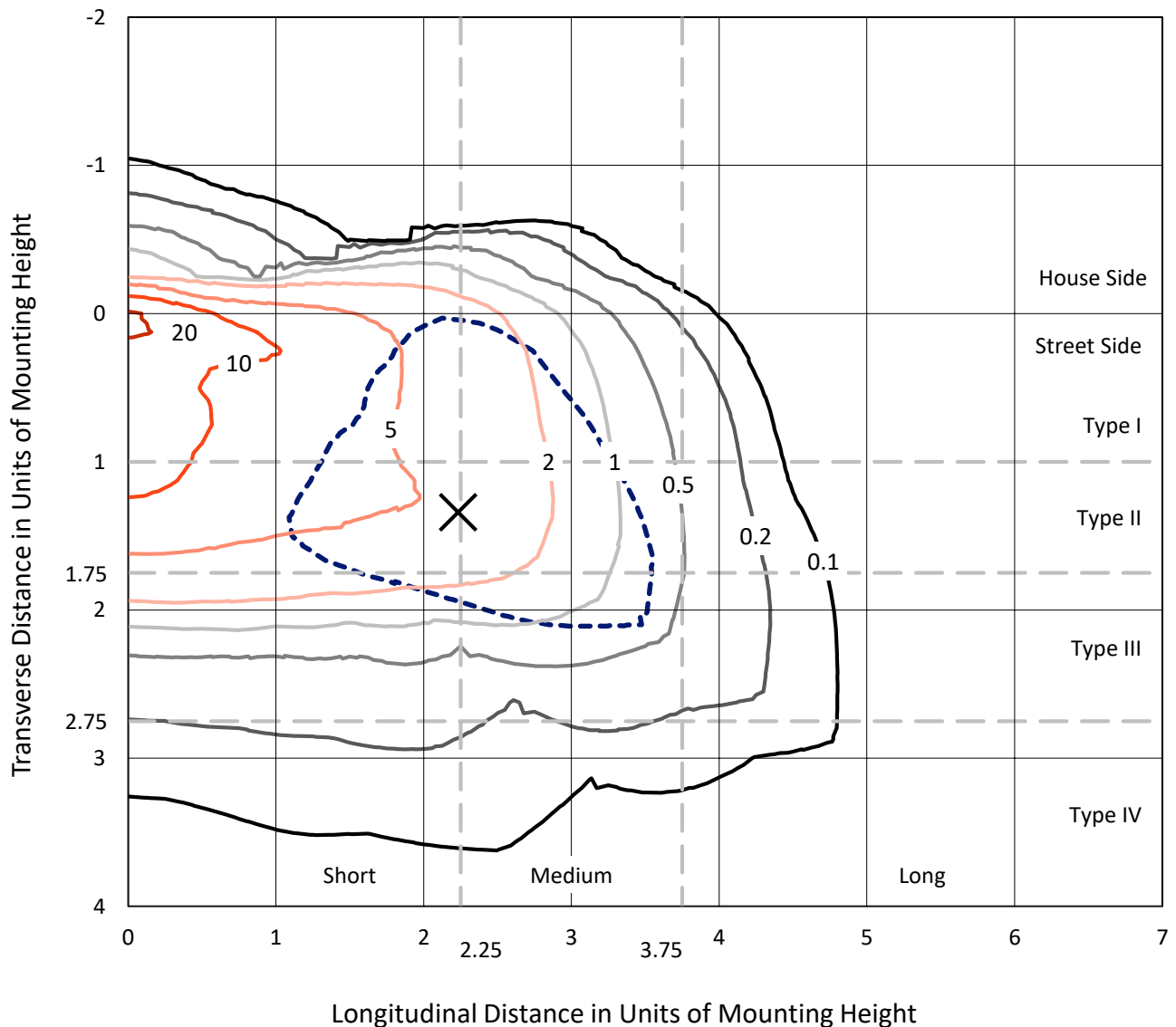
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

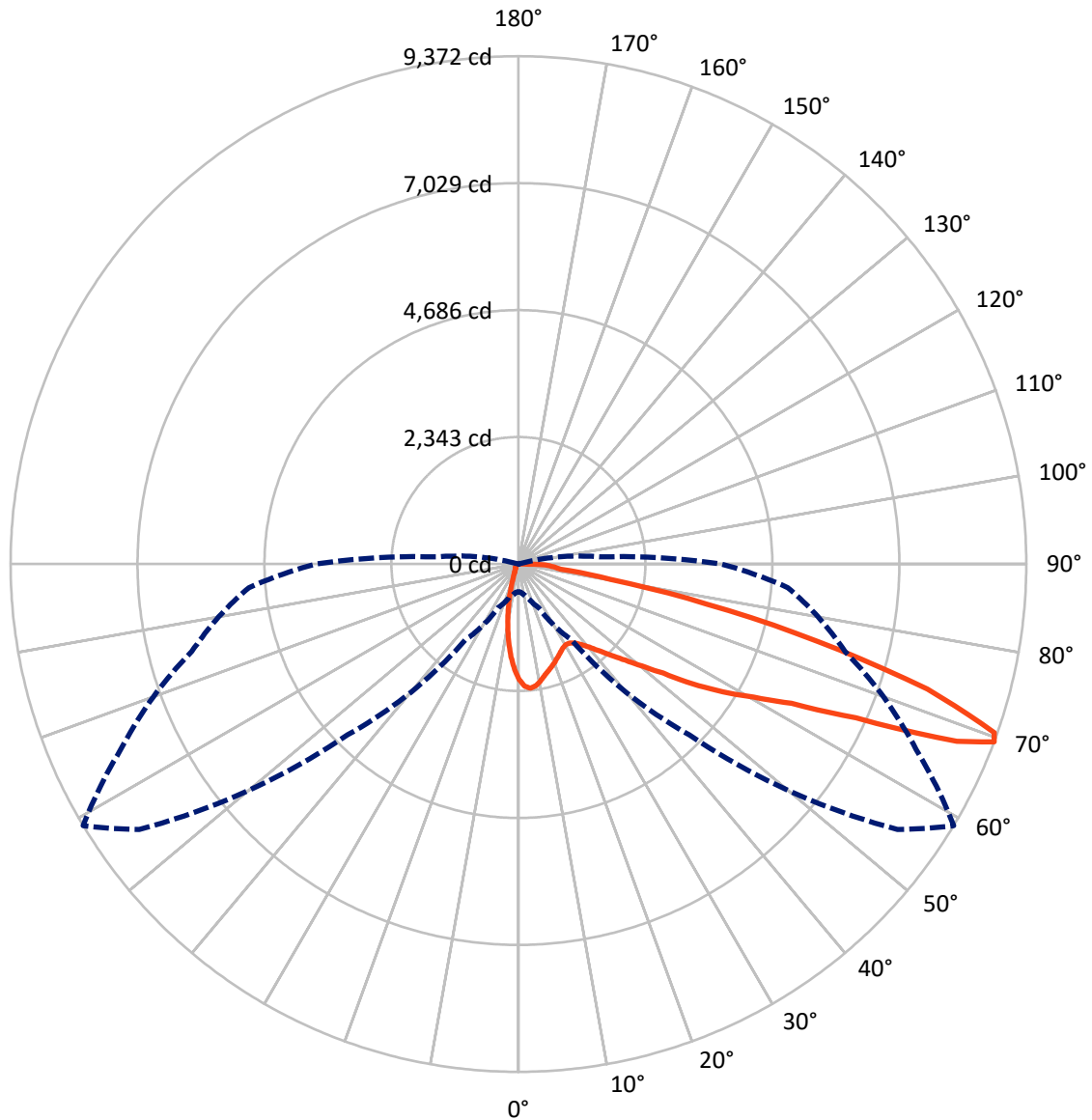
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.5 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	668.7	0.0	668.7
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	7542.6	0.0	7542.6
	% Fixture	91.9	0.0	91.9
Total	Lumens	8211.3	0.0	8211.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.5	2.1
10°-20°	358.5	4.4
20°-30°	482.4	5.9
30°-40°	700.4	8.5
40°-50°	1166.1	14.2
50°-60°	1819.2	22.2
60°-70°	2251.1	27.4
70°-80°	1140.8	13.9
80°-90°	119.4	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°	8211.3	100.0
0°-180°	8211.3	100.0



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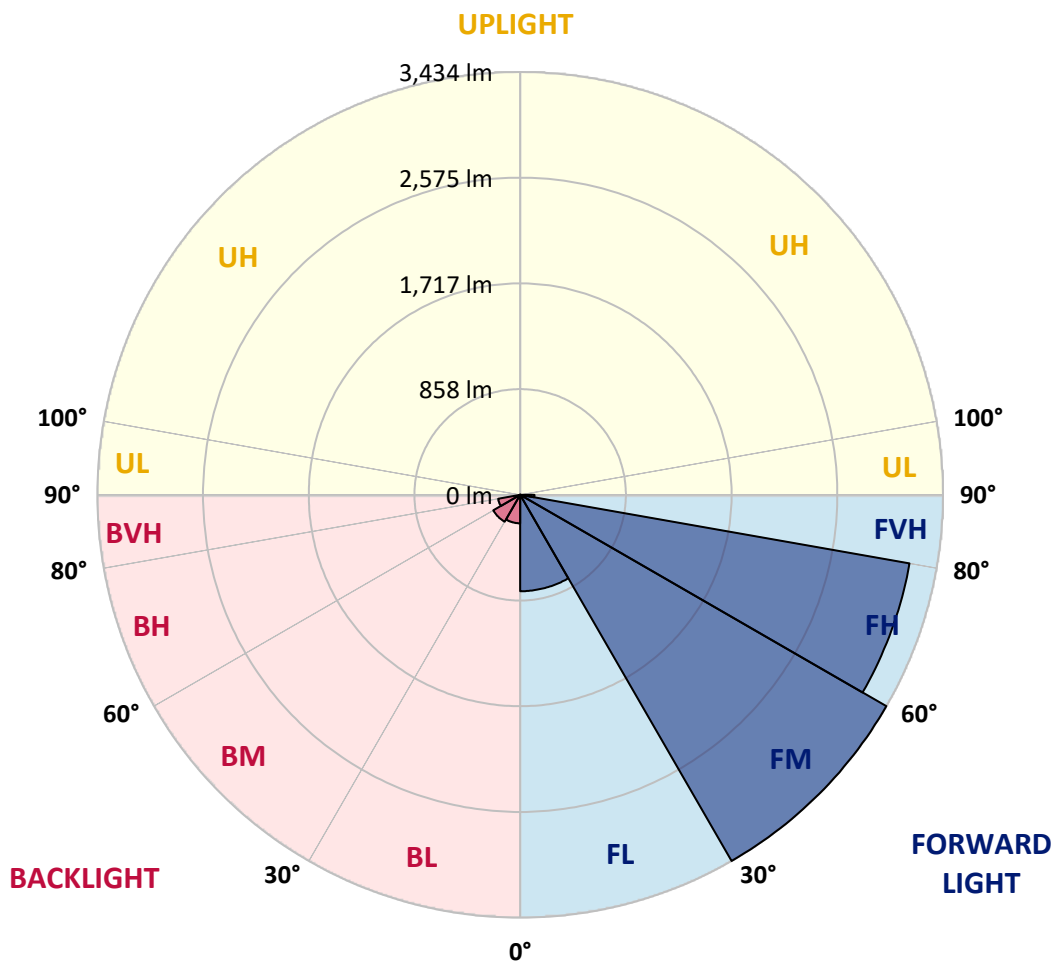
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	782.9	9.5			
FM	(30°-60°)	3433.7	41.8			
FH	(60°-80°)	3210.3	39.1			G2/5000
FVH	(80°-90°)	115.7	1.4			G2/225
BL	(0°-30°)	231.5	2.8	B1/500		
BM	(30°-60°)	252.0	3.1	B1/1000		
BH	(60°-80°)	181.6	2.2	B1/500		G1/500
BVH	(80°-90°)	3.7	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°	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2
2.5°	2342.5	2341.6	2331.4	2326.7	2318.3	2300.7	2273.3	2259.0	2235.8	2195.3	2141.0
5°	2321.1	2332.4	2338.3	2338.8	2344.9	2338.3	2313.7	2301.7	2269.7	2204.6	2107.2
7.5°	2176.3	2180.4	2197.7	2212.5	2241.3	2268.7	2277.5	2272.3	2253.4	2183.8	2054.2
10°	2021.3	2025.3	2045.9	2065.3	2104.3	2146.5	2191.1	2200.5	2208.4	2154.0	2003.1
12.5°	1887.4	1891.6	1912.6	1938.0	1983.6	2035.6	2104.8	2120.1	2155.0	2125.7	1962.2
15°	1772.3	1774.1	1794.6	1826.1	1880.5	1947.3	2025.9	2050.5	2103.9	2105.8	1926.5
17.5°	1674.3	1679.0	1691.6	1721.7	1781.2	1863.8	1955.3	1990.6	2053.2	2089.0	1891.6
20°	1614.4	1619.1	1618.6	1635.4	1688.8	1776.9	1884.8	1926.9	2003.1	2071.9	1860.6
22.5°	1602.9	1602.9	1590.8	1588.4	1620.0	1693.9	1811.4	1862.8	1958.0	2064.4	1838.8
25°	1644.2	1642.3	1612.2	1587.6	1589.0	1633.0	1740.2	1801.5	1920.0	2069.5	1827.1
27.5°	1731.5	1729.1	1691.0	1644.2	1606.6	1606.1	1686.4	1752.3	1889.8	2093.7	1831.8
30°	1852.1	1851.3	1810.0	1750.9	1682.7	1620.0	1667.8	1727.7	1870.3	2137.2	1842.4
32.5°	1984.0	1982.6	1951.5	1889.4	1802.9	1682.7	1687.4	1737.6	1875.9	2195.3	1868.5
35°	2123.9	2121.5	2108.0	2053.7	1958.6	1798.3	1751.5	1790.4	1911.2	2282.2	1919.5
37.5°	2275.2	2277.5	2287.2	2235.2	2135.4	1960.4	1858.8	1885.2	1982.2	2400.1	2002.6
40°	2498.5	2498.1	2501.3	2433.0	2337.0	2158.6	2008.6	2017.0	2101.1	2556.6	2128.9
42.5°	2903.8	2875.6	2789.7	2650.4	2553.8	2385.2	2197.7	2188.8	2246.5	2750.2	2305.8
45°	3448.6	3388.1	3165.3	2898.3	2774.8	2640.7	2430.2	2402.0	2438.6	2982.8	2524.1
47.5°	3917.0	3854.3	3539.1	3156.4	3009.3	2883.0	2702.8	2651.8	2663.9	3243.3	2800.8
50°	4076.3	4045.6	3770.4	3381.2	3236.3	3188.1	3019.1	2956.8	2939.7	3544.6	3121.6
52.5°	4021.0	4018.8	3835.3	3527.0	3444.4	3503.8	3416.9	3345.0	3281.8	3862.3	3448.0
55°	3932.3	3944.0	3861.7	3654.7	3651.9	3792.2	3961.1	3901.2	3718.3	4207.3	3729.5
57.5°	3687.7	3737.3	3847.0	3896.2	4010.3	4153.9	4414.4	4449.6	4233.3	4471.4	3963.0
60°	2992.1	3101.2	3459.7	3930.9	4472.4	4829.9	4961.4	4991.4	4655.7	4691.0	4278.3
62.5°	2123.9	2235.2	2689.9	3487.1	4479.3	5718.1	5776.2	5657.8	5121.1	5016.6	4822.0
65°	1127.3	1213.3	1584.8	2517.1	3883.7	5924.3	7201.2	6848.4	5941.9	5656.8	5524.5
67.5°	576.7	602.7	750.4	1231.9	2669.9	5262.2	8478.5	8726.9	7356.7	6292.1	5490.6
69°	510.3	525.6	623.6	890.6	1709.6	4457.1	8540.8	9371.9	8097.4	6239.1	4989.6
70°	494.0	507.5	596.6	806.1	1336.4	3737.7	8302.5	9315.3	8286.8	6037.6	4615.4
72.5°	419.4	430.9	531.3	712.3	1086.1	1855.4	6744.3	7893.6	7436.1	5029.5	3340.7
75°	280.5	318.6	509.9	667.8	1010.4	1054.1	4446.4	5704.2	5298.9	3392.3	1740.2
77.5°	67.3	72.4	144.0	531.3	924.0	927.7	2286.8	3546.0	2892.3	1209.1	411.3
80°	36.3	34.9	40.3	105.4	860.4	870.6	1029.5	1721.3	1032.7	200.6	135.5
82.5°	25.6	24.2	26.0	44.1	270.8	793.0	744.8	779.1	428.1	77.0	60.9
85°	9.3	8.9	14.3	39.9	84.9	455.9	765.2	642.6	346.8	35.3	44.6
87.5°	3.2	2.8	5.6	21.8	26.0	194.1	472.2	485.7	136.5	21.4	20.9
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°	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2
2.5°	2118.3	2089.4	2036.6	1982.2	1932.0	1871.7	1841.5	1811.8	1799.3	1794.6	1772.9
5°	2057.0	2008.2	1895.9	1783.0	1679.0	1568.5	1495.6	1437.2	1402.7	1386.0	1359.6
7.5°	1978.5	1898.7	1728.2	1554.1	1392.0	1232.3	1114.0	1022.9	960.2	930.1	902.7
10°	1902.3	1796.1	1553.7	1316.4	1096.2	884.5	721.0	602.7	527.0	492.2	470.0
12.5°	1834.2	1696.2	1385.1	1084.7	808.3	560.5	394.2	300.0	253.0	236.7	228.9
15°	1773.3	1604.3	1225.9	864.6	547.4	320.4	215.5	183.5	176.0	176.0	175.0
17.5°	1715.6	1514.2	1072.1	657.9	343.6	196.0	163.9	159.7	159.7	161.5	161.5
20°	1660.4	1428.3	923.5	472.2	216.4	155.5	148.2	147.2	148.2	150.4	150.4
22.5°	1613.0	1350.3	784.7	324.0	160.7	140.2	136.5	135.1	135.5	136.9	137.9
25°	1577.7	1284.3	653.8	219.6	138.3	127.6	123.6	121.2	119.4	119.4	120.2
27.5°	1555.5	1228.7	527.0	159.7	124.4	116.1	109.5	105.9	101.6	99.4	100.2
30°	1539.2	1175.7	408.1	130.5	111.5	103.0	94.8	88.7	82.7	79.8	80.8
32.5°	1533.2	1132.9	305.1	115.1	99.8	90.5	80.3	72.4	65.9	63.5	64.1
35°	1549.5	1099.1	223.4	104.0	90.5	78.9	67.3	58.5	53.4	52.0	52.4
37.5°	1592.2	1080.9	167.1	94.8	82.2	69.2	56.2	47.8	44.6	44.6	45.0
40°	1672.9	1080.5	134.3	88.3	74.8	59.9	46.4	40.3	38.5	39.5	39.9
42.5°	1790.9	1105.1	117.0	82.2	68.3	51.0	38.5	34.3	33.9	34.9	35.3
45°	1952.0	1150.1	107.7	77.0	61.3	42.7	32.5	29.7	29.7	31.1	31.6
47.5°	2149.3	1216.0	99.8	72.0	54.3	35.7	27.8	26.0	26.4	27.8	28.3
50°	2387.1	1299.2	91.9	66.4	49.2	29.7	24.2	22.8	23.2	25.0	25.6
52.5°	2657.8	1411.1	85.5	61.3	42.7	24.6	20.4	19.5	20.4	22.4	22.8
55°	2889.9	1511.4	77.6	57.1	34.3	20.4	16.7	16.7	17.7	20.0	20.4
57.5°	3113.3	1616.3	70.6	49.2	27.0	16.3	13.9	14.3	15.7	18.1	18.6
60°	3441.1	1794.1	62.3	41.3	20.4	12.9	11.7	12.1	13.9	16.3	16.7
62.5°	3997.8	2064.8	53.8	34.3	15.7	10.3	9.3	10.3	12.5	15.3	15.7
65°	4500.3	2174.9	44.1	28.8	12.1	7.9	7.9	9.3	12.1	14.9	15.3
67.5°	4220.2	1830.8	34.3	22.8	9.3	6.0	6.5	8.9	11.7	14.9	15.3
69°	3732.3	1497.0	29.2	18.1	7.9	5.6	6.0	8.9	11.7	14.3	14.9
70°	3352.0	1264.0	26.0	15.3	7.0	5.6	6.0	8.3	11.7	14.3	14.9
72.5°	2245.1	682.5	20.9	11.1	6.5	5.1	5.1	8.3	11.1	13.9	14.3
75°	964.8	188.5	16.7	7.9	5.6	4.6	4.6	7.9	10.7	13.5	14.3
77.5°	176.4	47.8	13.5	7.0	5.6	4.6	4.2	7.5	10.3	12.9	13.5
80°	70.1	23.6	10.7	6.0	5.1	4.2	3.7	7.0	9.7	12.5	12.9
82.5°	42.3	13.5	8.9	5.6	5.1	3.7	3.2	6.0	9.3	12.1	12.5
85°	34.3	9.3	7.0	5.6	4.6	3.7	2.8	5.6	8.3	11.7	12.1
87.5°	16.7	6.5	6.5	5.1	4.6	3.7	2.8	5.1	7.9	11.1	11.7
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)