

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-03-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-03-LED-E1-SL3-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 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: 9290.1 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

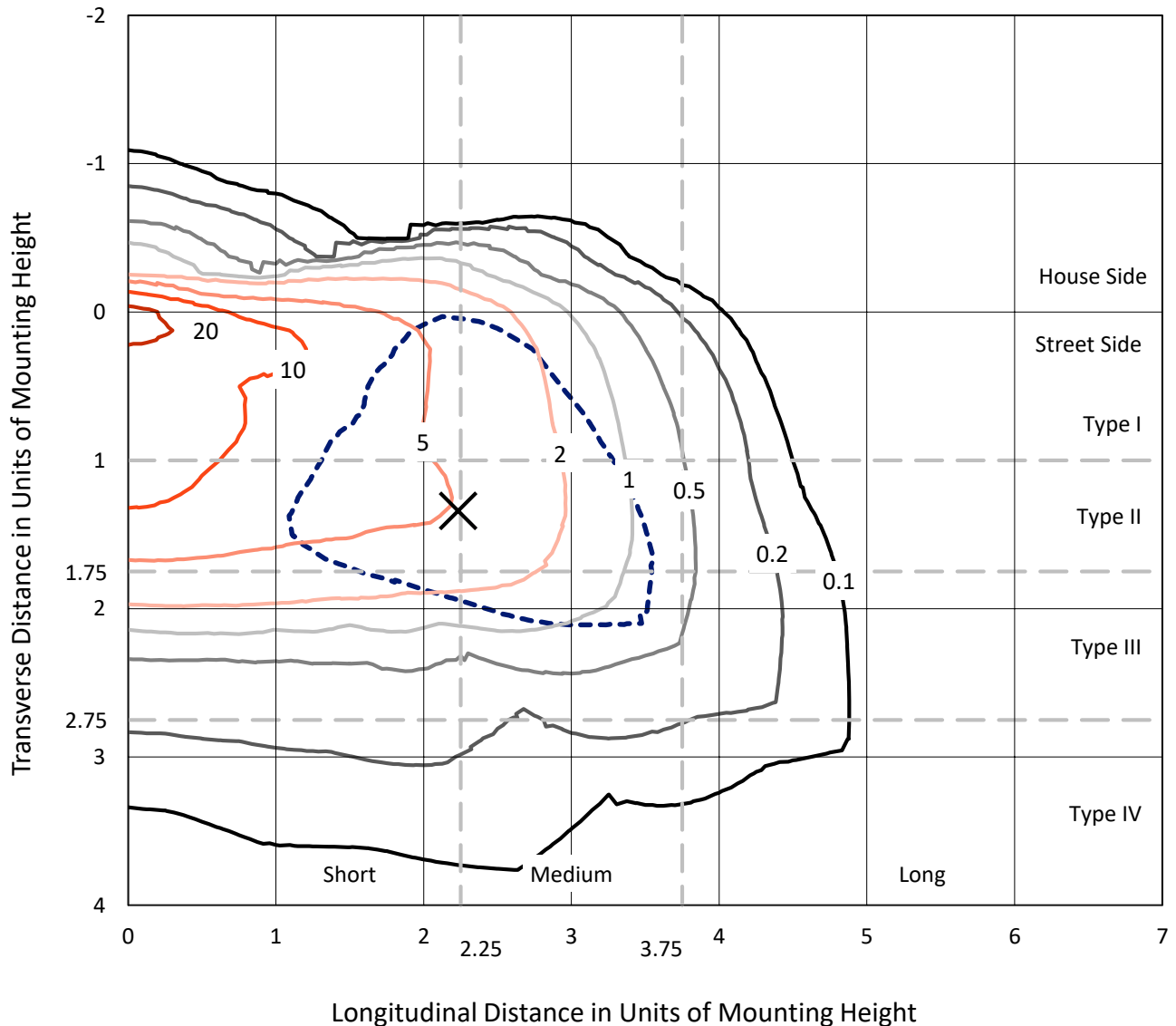
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

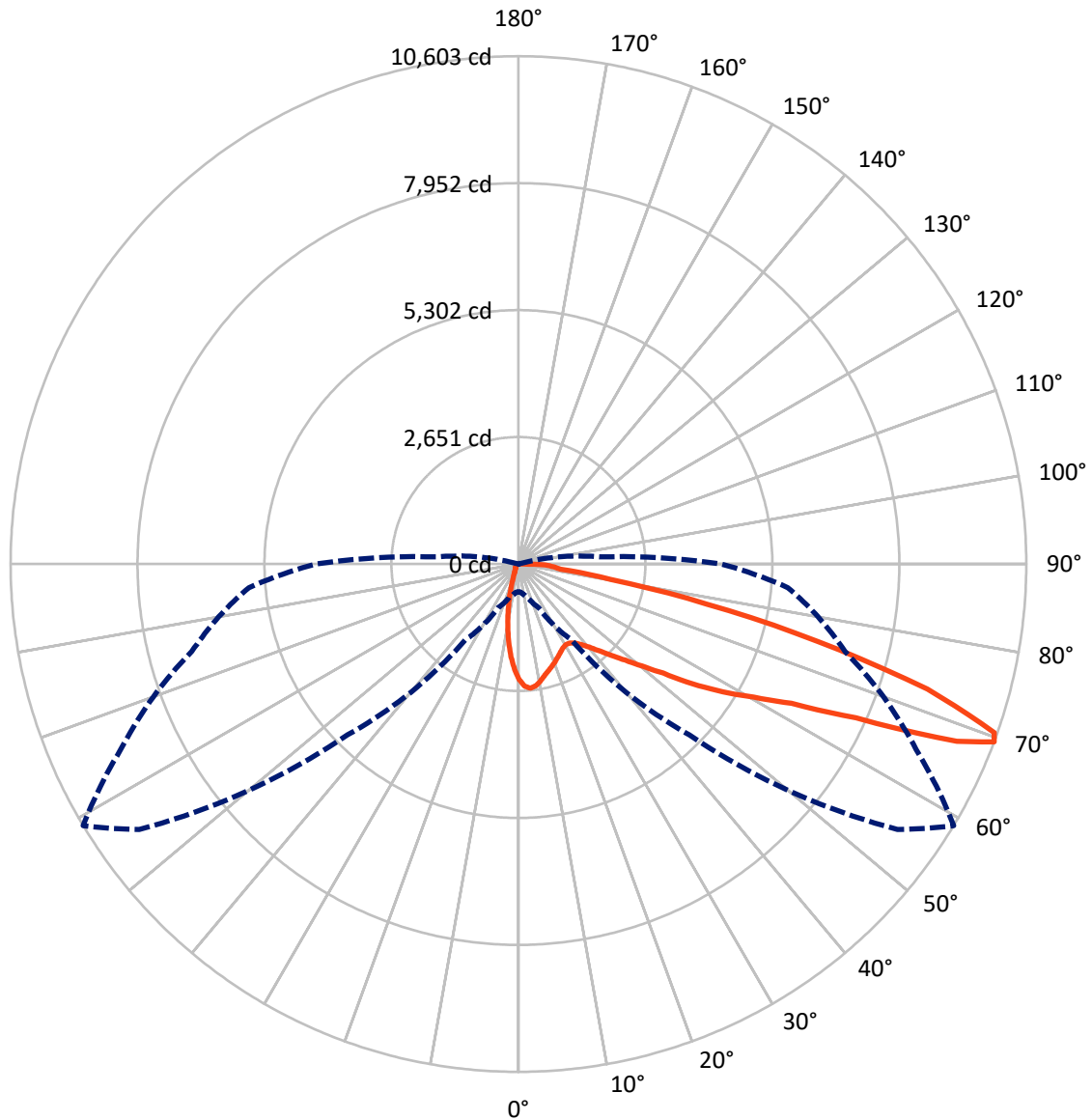


Based on 10 foot mounting height. Maximum calculated value = 24.3 fc
 Type III - Short - Non-Cutoff

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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	756.5	0.0	756.5
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	8533.6	0.0	8533.6
	% Fixture	91.9	0.0	91.9
Total	Lumens	9290.1	0.0	9290.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.3	2.1
10°-20°	405.6	4.4
20°-30°	545.7	5.9
30°-40°	792.4	8.5
40°-50°	1319.4	14.2
50°-60°	2058.2	22.2
60°-70°	2546.9	27.4
70°-80°	1290.7	13.9
80°-90°	135.1	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°	9290.1	100.0
0°-180°	9290.1	100.0



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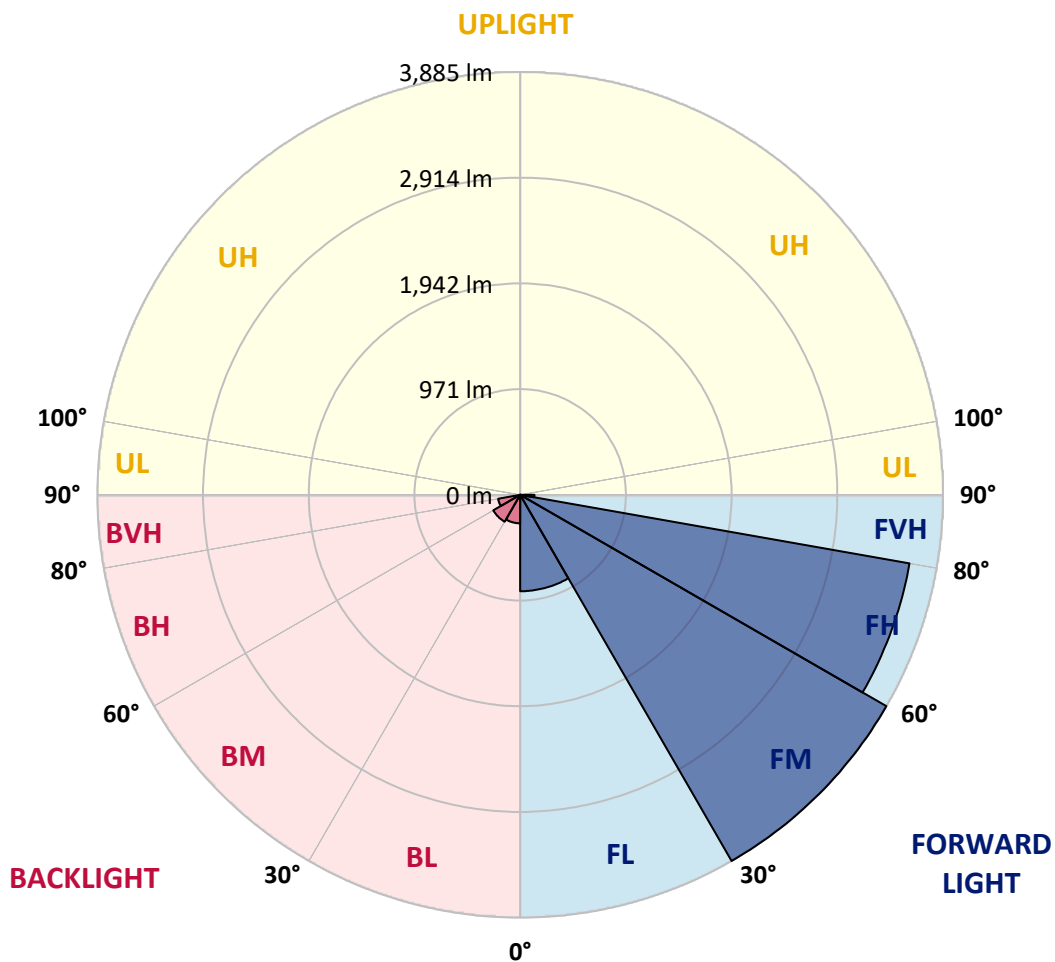
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	885.7	9.5			
FM	(30°-60°)	3884.9	41.8			
FH	(60°-80°)	3632.1	39.1			G2/5000
FVH	(80°-90°)	130.9	1.4			G2/225
BL	(0°-30°)	261.9	2.8	B1/500		
BM	(30°-60°)	285.1	3.1	B1/1000		
BH	(60°-80°)	205.5	2.2	B1/500		G1/500
BVH	(80°-90°)	4.2	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°	2418.0	2418.0	2418.0	2418.0	2418.0	2418.0	2418.0	2418.0	2418.0	2418.0	2418.0
2.5°	2650.3	2649.3	2637.7	2632.4	2622.9	2603.0	2572.0	2555.8	2529.5	2483.7	2422.3
5°	2626.1	2638.8	2645.5	2646.1	2653.0	2645.5	2617.7	2604.1	2567.9	2494.2	2384.0
7.5°	2462.3	2466.9	2486.4	2503.1	2535.7	2566.8	2576.8	2570.9	2549.4	2470.7	2324.0
10°	2286.8	2291.4	2314.7	2336.6	2380.8	2428.5	2479.0	2489.6	2498.5	2437.0	2266.3
12.5°	2135.4	2140.2	2163.9	2192.7	2244.2	2303.1	2381.3	2398.6	2438.1	2405.0	2220.0
15°	2005.2	2007.2	2030.4	2066.1	2127.6	2203.2	2292.1	2319.9	2380.4	2382.4	2179.6
17.5°	1894.3	1899.5	1913.9	1947.9	2015.2	2108.7	2212.2	2252.2	2322.9	2363.5	2140.2
20°	1826.5	1831.8	1831.3	1850.2	1910.7	2010.4	2132.4	2180.1	2266.3	2344.1	2105.0
22.5°	1813.5	1813.5	1799.8	1797.1	1832.9	1916.4	2049.4	2107.6	2215.3	2335.7	2080.4
25°	1860.3	1858.0	1824.0	1796.2	1797.7	1847.5	1968.9	2038.2	2172.3	2341.4	2067.2
27.5°	1959.0	1956.3	1913.2	1860.3	1817.6	1817.2	1908.0	1982.6	2138.1	2368.7	2072.4
30°	2095.5	2094.5	2047.8	1981.0	1903.8	1832.9	1887.0	1954.7	2116.0	2418.0	2084.5
32.5°	2244.7	2243.1	2207.9	2137.6	2039.8	1903.8	1909.1	1965.9	2122.4	2483.7	2113.9
35°	2402.9	2400.2	2385.0	2323.6	2215.9	2034.6	1981.6	2025.7	2162.3	2582.0	2171.7
37.5°	2574.1	2576.8	2587.8	2528.9	2416.0	2218.0	2103.0	2132.9	2242.6	2715.5	2265.7
40°	2826.8	2826.3	2830.0	2752.7	2644.1	2442.2	2272.5	2282.1	2377.2	2892.5	2408.7
42.5°	3285.3	3253.4	3156.2	2998.6	2889.3	2698.6	2486.4	2476.4	2541.6	3111.5	2608.7
45°	3901.7	3833.3	3581.2	3279.1	3139.3	2987.6	2749.5	2717.5	2759.0	3374.7	2855.8
47.5°	4431.6	4360.7	4004.1	3571.2	3404.6	3261.8	3057.9	3000.2	3013.8	3669.5	3168.8
50°	4611.8	4577.2	4265.7	3825.5	3661.5	3606.9	3415.8	3345.3	3325.9	4010.3	3531.7
52.5°	4549.3	4546.8	4339.2	3990.4	3896.9	3964.2	3865.9	3784.4	3713.0	4369.8	3901.0
55°	4449.0	4462.2	4369.1	4134.8	4131.7	4290.4	4481.6	4413.8	4206.9	4760.1	4219.5
57.5°	4172.2	4228.4	4352.4	4408.1	4537.2	4699.6	4994.3	5034.3	4789.5	5058.9	4483.6
60°	3385.2	3508.7	3914.2	4447.4	5060.0	5464.5	5613.2	5647.2	5267.4	5307.4	4840.4
62.5°	2402.9	2528.9	3043.3	3945.2	5067.8	6469.4	6535.1	6401.1	5793.9	5675.7	5455.6
65°	1275.4	1372.8	1793.0	2847.8	4393.9	6702.7	8147.4	7748.1	6722.6	6400.0	6250.4
67.5°	652.4	681.8	849.0	1393.8	3020.7	5953.6	9592.5	9873.5	8323.3	7118.8	6212.0
69°	577.4	594.7	705.5	1007.6	1934.2	5042.7	9663.0	10603.3	9161.3	7058.8	5645.2
70°	558.9	574.2	675.0	912.0	1511.9	4228.8	9393.4	10539.2	9375.6	6830.9	5221.8
72.5°	474.4	487.5	601.1	805.9	1228.8	2099.1	7630.4	8930.7	8413.1	5690.4	3779.7
75°	317.3	360.4	576.9	755.5	1143.1	1192.6	5030.6	6453.6	5995.1	3838.0	1968.9
77.5°	76.2	81.9	162.9	601.1	1045.4	1049.6	2587.3	4011.9	3272.3	1368.0	465.4
80°	41.0	39.4	45.6	119.3	973.4	985.0	1164.7	1947.4	1168.4	227.0	153.3
82.5°	28.9	27.4	29.4	49.9	306.3	897.2	842.6	881.5	484.3	87.2	68.9
85°	10.5	10.0	16.2	45.2	96.1	515.8	865.7	727.0	392.4	39.9	50.4
87.5°	3.7	3.2	6.4	24.7	29.4	219.6	534.3	549.5	154.4	24.2	23.7
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°	2418.0	2418.0	2418.0	2418.0	2418.0	2418.0	2418.0	2418.0	2418.0	2418.0	2418.0
2.5°	2396.6	2364.0	2304.2	2242.6	2185.8	2117.6	2083.4	2049.8	2035.7	2030.4	2005.8
5°	2327.2	2272.0	2145.0	2017.2	1899.5	1774.5	1692.1	1626.0	1587.0	1568.1	1538.2
7.5°	2238.5	2148.1	1955.2	1758.3	1574.9	1394.2	1260.3	1157.3	1086.3	1052.3	1021.3
10°	2152.3	2032.0	1757.8	1489.3	1240.3	1000.7	815.8	681.8	596.3	556.8	531.7
12.5°	2075.1	1919.1	1567.1	1227.2	914.5	634.1	446.0	339.4	286.3	267.8	258.9
15°	2006.3	1815.1	1386.9	978.2	619.3	362.5	243.8	207.6	199.1	199.1	198.0
17.5°	1941.1	1713.1	1212.9	744.4	388.7	221.7	185.5	180.7	180.7	182.7	182.7
20°	1878.5	1616.0	1044.8	534.3	244.8	175.9	167.6	166.5	167.6	170.2	170.2
22.5°	1824.9	1527.7	887.8	366.6	181.8	158.6	154.4	152.8	153.3	154.9	156.0
25°	1785.0	1453.1	739.7	248.4	156.5	144.4	139.8	137.1	135.0	135.0	136.0
27.5°	1759.9	1390.1	596.3	180.7	140.8	131.4	123.9	119.8	115.0	112.4	113.4
30°	1741.4	1330.1	461.7	147.6	126.1	116.6	107.2	100.4	93.5	90.3	91.5
32.5°	1734.6	1281.8	345.1	130.3	112.9	102.4	90.8	81.9	74.6	71.9	72.5
35°	1753.1	1243.5	252.7	117.7	102.4	89.2	76.2	66.2	60.4	58.8	59.3
37.5°	1801.4	1222.9	189.1	107.2	93.0	78.3	63.6	54.1	50.4	50.4	50.9
40°	1892.7	1222.5	151.9	99.9	84.6	67.8	52.5	45.6	43.6	44.7	45.2
42.5°	2026.1	1250.3	132.3	93.0	77.3	57.7	43.6	38.8	38.3	39.4	39.9
45°	2208.4	1301.2	121.8	87.2	69.3	48.4	36.7	33.6	33.6	35.2	35.8
47.5°	2431.7	1375.8	112.9	81.4	61.4	40.4	31.5	29.4	29.9	31.5	32.0
50°	2700.7	1469.9	104.0	75.1	55.7	33.6	27.4	25.8	26.2	28.3	28.9
52.5°	3007.0	1596.5	96.7	69.3	48.4	27.8	23.1	22.1	23.1	25.3	25.8
55°	3269.6	1710.0	87.8	64.6	38.8	23.1	18.9	18.9	20.0	22.6	23.1
57.5°	3522.3	1828.6	79.8	55.7	30.5	18.4	15.7	16.2	17.8	20.5	21.0
60°	3893.2	2029.8	70.5	46.8	23.1	14.6	13.2	13.7	15.7	18.4	18.9
62.5°	4523.1	2336.1	60.9	38.8	17.8	11.6	10.5	11.6	14.2	17.3	17.8
65°	5091.5	2460.7	49.9	32.6	13.7	8.9	8.9	10.5	13.7	16.9	17.3
67.5°	4774.7	2071.3	38.8	25.8	10.5	6.8	7.3	10.0	13.2	16.9	17.3
69°	4222.6	1693.7	33.1	20.5	8.9	6.4	6.8	10.0	13.2	16.2	16.9
70°	3792.4	1430.0	29.4	17.3	8.0	6.4	6.8	9.4	13.2	16.2	16.9
72.5°	2540.0	772.2	23.7	12.6	7.3	5.7	5.7	9.4	12.6	15.7	16.2
75°	1091.6	213.3	18.9	8.9	6.4	5.2	5.2	8.9	12.1	15.3	16.2
77.5°	199.6	54.1	15.3	8.0	6.4	5.2	4.8	8.4	11.6	14.6	15.3
80°	79.4	26.7	12.1	6.8	5.7	4.8	4.1	8.0	11.0	14.2	14.6
82.5°	47.9	15.3	10.0	6.4	5.7	4.1	3.7	6.8	10.5	13.7	14.2
85°	38.8	10.5	8.0	6.4	5.2	4.1	3.2	6.4	9.4	13.2	13.7
87.5°	18.9	7.3	7.3	5.7	5.2	4.1	3.2	5.7	8.9	12.6	13.2
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)