

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: P299714

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-7030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299714
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-04-LED-E1-SL2-7030-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K 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: 11511.6 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 129
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

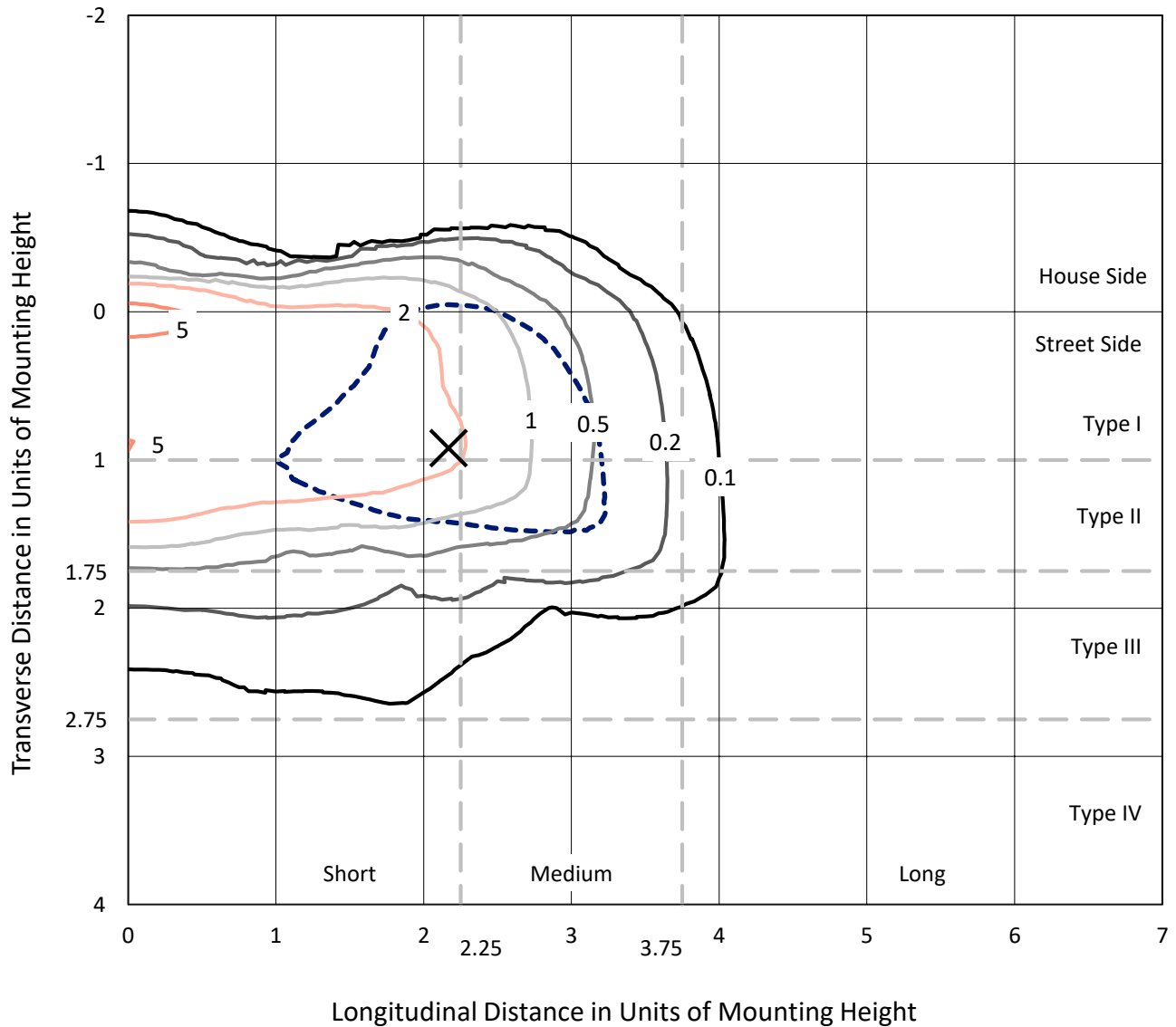


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

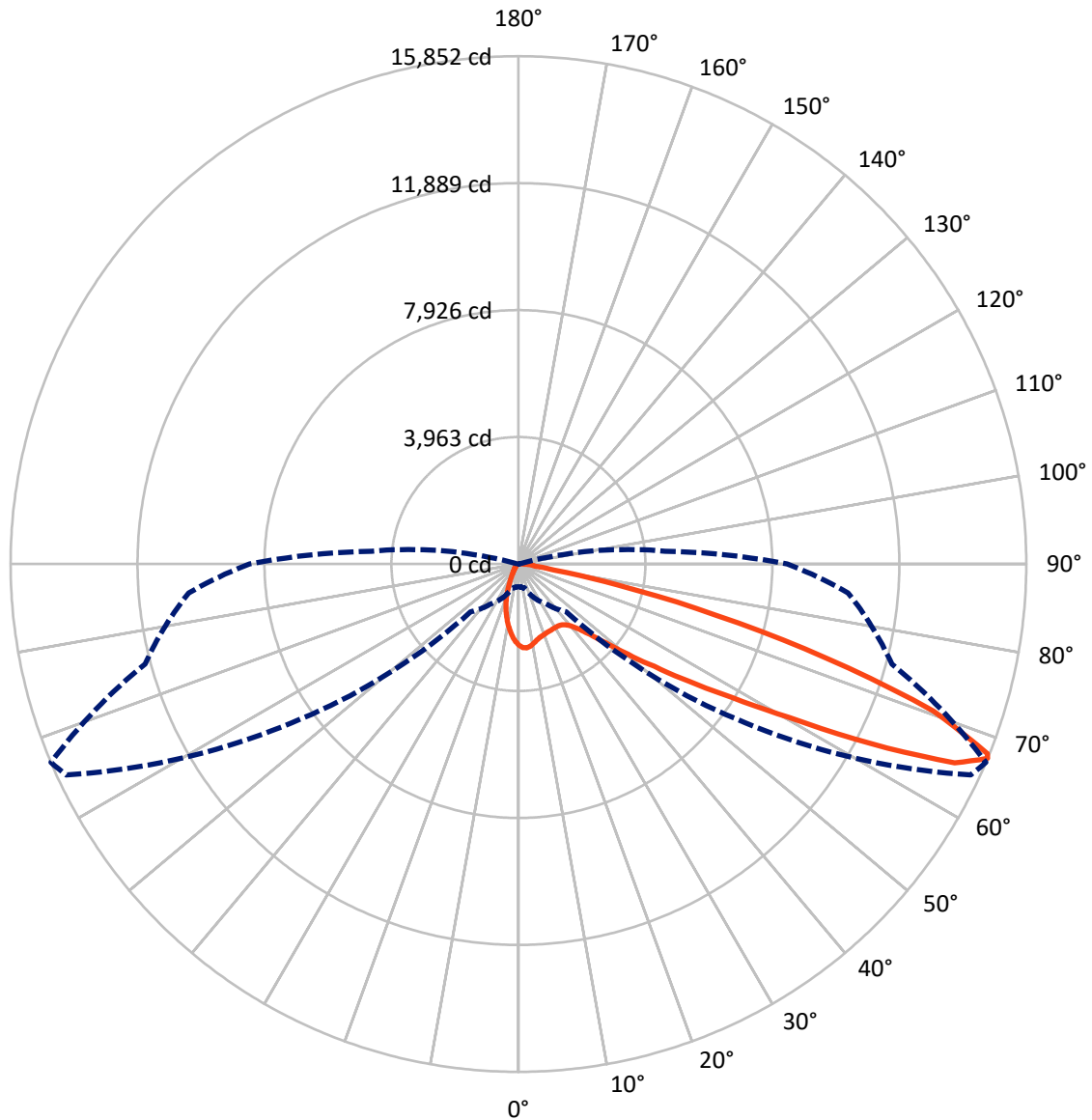


Based on 20 foot mounting height. Maximum calculated value = 6.3 fc
 Type II - Short - Semi-Cutoff

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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	1195.2	0.0	1195.2
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	10316.4	0.0	10316.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	11511.6	0.0	11511.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.6	1.8
10°-20°	439.7	3.8
20°-30°	639.2	5.6
30°-40°	997.2	8.7
40°-50°	1766.6	15.3
50°-60°	2795.4	24.3
60°-70°	3201.7	27.8
70°-80°	1328.1	11.5
80°-90°	137.2	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°	11511.6	100.0
0°-180°	11511.6	100.0



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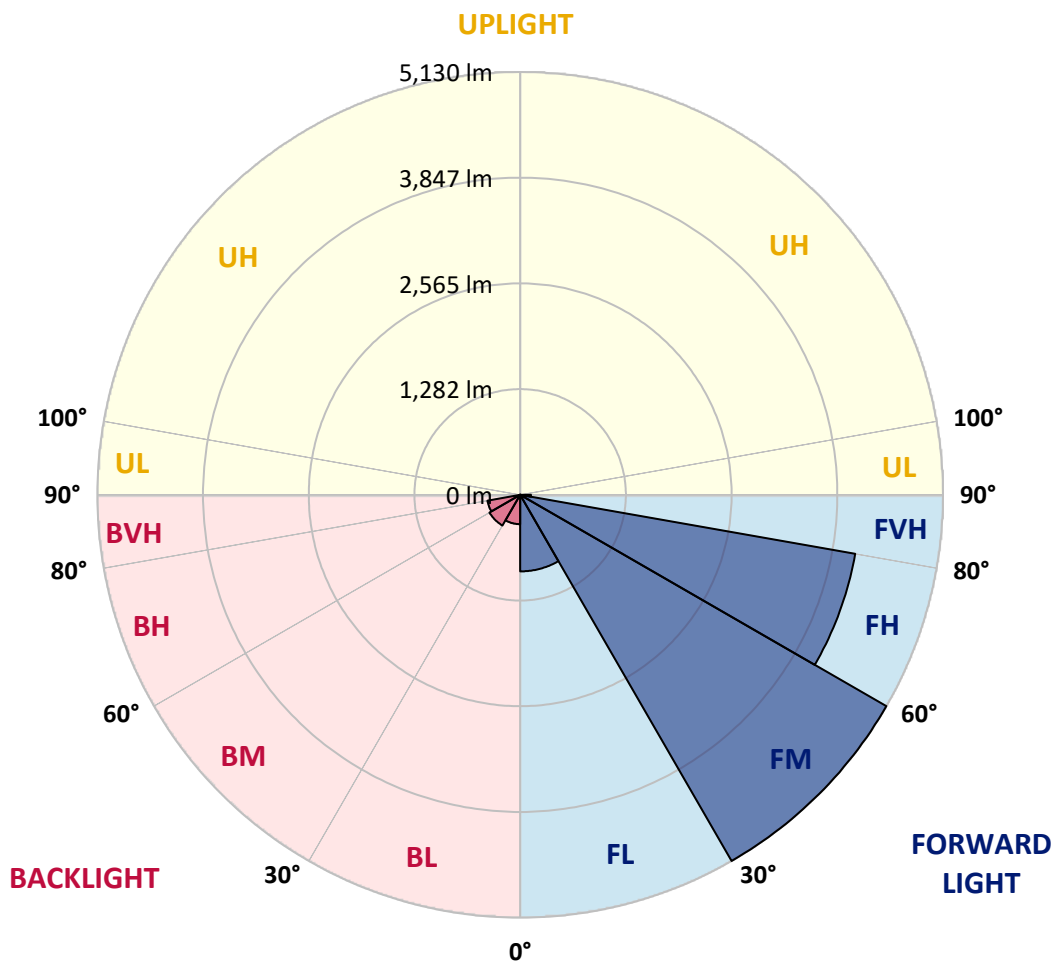
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	928.8	8.1			
FM (30°-60°)	5129.6	44.6			
FH (60°-80°)	4126.9	35.9			G2/5000
FVH (80°-90°)	131.0	1.1			G2/225
BL (0°-30°)	356.7	3.1	B1/500		
BM (30°-60°)	429.6	3.7	B1/1000		
BH (60°-80°)	402.8	3.5	B1/500		G1/500
BVH (80°-90°)	6.2	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°	2538.7	2538.7	2538.7	2538.7	2538.7	2538.7	2538.7	2538.7	2538.7	2538.7	2538.7
2.5°	2624.7	2630.1	2629.4	2633.4	2642.8	2643.5	2634.1	2616.0	2611.9	2588.4	2547.5
5°	2420.6	2436.0	2445.4	2483.7	2526.7	2578.4	2617.3	2631.4	2629.4	2612.6	2550.8
7.5°	2187.6	2203.0	2213.8	2258.7	2315.8	2404.4	2505.8	2589.1	2596.5	2614.6	2548.1
10°	2032.5	2035.2	2049.9	2092.9	2152.7	2243.3	2364.2	2509.9	2532.0	2598.5	2541.4
12.5°	1904.9	1906.9	1926.4	1972.7	2036.5	2127.8	2254.7	2423.2	2457.5	2578.4	2540.1
15°	1814.2	1821.6	1839.1	1887.4	1955.3	2045.9	2176.2	2359.5	2400.4	2571.0	2552.2
17.5°	1784.0	1792.1	1797.5	1832.4	1894.1	1982.8	2116.4	2317.8	2364.2	2575.0	2575.7
20°	1815.6	1821.6	1809.5	1818.3	1856.5	1935.8	2066.0	2282.2	2337.3	2579.7	2605.9
22.5°	1933.1	1935.8	1902.9	1864.6	1857.9	1901.5	2026.4	2254.0	2313.1	2592.5	2641.5
25°	2134.5	2129.8	2076.1	1993.5	1915.6	1895.5	2002.9	2236.6	2301.0	2605.9	2678.4
27.5°	2377.6	2384.3	2310.4	2190.3	2041.9	1935.8	1999.6	2229.2	2295.7	2615.3	2710.6
30°	2673.0	2682.4	2597.8	2446.7	2233.9	2035.2	2030.5	2227.9	2292.3	2609.2	2713.3
32.5°	2974.5	2985.9	2919.4	2763.7	2490.4	2201.7	2100.3	2242.6	2299.0	2588.4	2697.9
35°	3290.1	3306.2	3261.9	3128.3	2838.2	2442.0	2223.2	2287.6	2330.6	2586.4	2682.4
37.5°	3725.9	3740.6	3657.4	3515.7	3259.2	2764.3	2420.6	2372.2	2405.1	2618.6	2686.5
40°	4376.5	4374.5	4159.6	3942.7	3721.8	3173.9	2697.9	2525.3	2542.1	2716.0	2736.1
42.5°	5085.5	5082.2	4764.6	4434.9	4235.5	3678.2	3062.5	2789.9	2778.4	2895.3	2865.1
45°	5632.1	5631.4	5372.2	5000.9	4853.9	4257.0	3533.8	3157.8	3140.4	3186.7	3102.8
47.5°	5865.1	5869.1	5738.9	5477.7	5539.4	5039.9	4128.1	3690.9	3664.8	3646.0	3518.4
50°	5683.8	5691.8	5702.6	5651.6	6042.3	6092.0	4925.1	4442.3	4429.5	4345.6	4146.2
52.5°	5091.6	5132.5	5258.8	5420.6	6216.9	7101.9	6174.6	5375.6	5307.1	5217.8	4998.2
55°	4093.8	4138.8	4378.5	4771.3	5957.1	7765.3	7925.8	6578.8	6464.7	6198.1	5881.2
57.5°	2709.3	2779.1	3126.9	3626.5	5202.4	7872.0	9672.9	8248.7	7851.2	7121.4	6764.1
60°	1492.6	1559.8	1937.1	2389.7	3757.4	7344.3	10847.9	10422.9	9720.5	8153.4	7836.4
62.5°	919.2	955.5	1234.1	1655.1	2253.4	5796.6	11090.9	13155.0	12341.9	9482.2	9131.7
65°	731.9	747.3	883.6	1353.0	1615.5	3447.9	10306.0	15237.8	14966.5	11090.9	10291.3
67°	710.4	716.4	780.9	1161.6	1522.8	2113.7	8634.1	15576.9	15852.2	12064.5	10327.5
67.5°	715.1	721.8	782.9	1108.6	1520.2	1942.5	8058.0	15443.3	15791.1	12141.8	10167.0
70°	689.6	710.4	896.4	1107.9	1445.6	1614.2	4825.7	13380.6	13742.5	11281.6	8626.7
72.5°	244.4	245.7	387.4	896.4	1571.9	1631.6	2423.2	9809.2	10077.1	8630.1	6219.6
75°	145.0	123.5	128.9	255.1	1502.0	1584.6	1398.0	6267.9	6368.0	4945.2	3149.8
77.5°	100.0	87.3	90.0	112.8	572.1	1562.5	1110.6	3268.6	3161.8	1734.3	670.8
80°	57.1	50.4	53.7	98.7	208.1	1457.7	1047.5	1325.4	1130.0	294.1	185.3
82.5°	30.2	25.5	30.9	81.2	145.0	908.5	1049.5	640.6	507.6	99.4	126.2
85°	10.7	8.7	14.8	55.7	96.7	278.7	972.9	538.5	423.0	48.3	96.0
87.5°	2.0	2.0	6.0	22.8	38.9	85.3	575.4	319.6	214.2	28.9	65.8
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°	2538.7	2538.7	2538.7	2538.7	2538.7	2538.7	2538.7	2538.7	2538.7	2538.7	2538.7
2.5°	2530.7	2501.8	2462.9	2415.2	2358.8	2309.1	2272.2	2233.9	2225.8	2212.4	2210.4
5°	2513.9	2464.2	2367.5	2256.7	2138.6	2031.8	1945.2	1868.0	1833.7	1804.2	1800.8
7.5°	2489.1	2414.5	2250.0	2071.4	1886.8	1718.9	1576.6	1475.8	1383.2	1338.9	1332.1
10°	2460.2	2353.4	2117.7	1870.0	1614.8	1377.8	1166.3	989.0	881.6	817.8	809.8
12.5°	2433.3	2293.7	1982.8	1661.2	1322.1	1005.2	733.2	564.0	451.2	405.6	400.2
15°	2420.6	2245.3	1856.5	1447.6	1015.9	639.9	400.9	310.2	273.3	262.5	261.9
17.5°	2419.2	2204.4	1733.0	1226.7	711.7	372.0	261.2	238.4	231.0	228.3	228.3
20°	2418.5	2165.4	1609.5	997.8	451.9	247.8	217.5	212.2	206.8	203.4	203.4
22.5°	2425.9	2130.5	1480.5	764.1	284.7	200.8	191.4	186.0	179.3	174.6	173.9
25°	2433.3	2103.6	1348.9	543.9	206.1	174.6	165.2	157.8	148.4	142.3	141.7
27.5°	2434.7	2070.1	1207.9	363.9	172.6	152.4	140.3	128.9	118.2	112.1	111.5
30°	2414.5	2013.7	1051.5	245.7	152.4	132.3	116.2	104.1	94.0	89.3	89.3
32.5°	2374.9	1943.8	879.6	185.3	135.6	113.5	96.0	84.6	77.9	75.9	75.2
35°	2339.3	1868.6	703.0	157.1	121.5	96.0	78.6	71.2	67.1	66.5	65.8
37.5°	2318.5	1808.2	537.2	142.3	108.1	80.6	66.5	61.1	59.1	57.7	58.4
40°	2334.6	1757.8	396.8	130.3	94.7	67.1	56.4	53.7	51.7	51.0	51.0
42.5°	2405.1	1749.1	294.8	119.5	81.9	55.7	49.0	47.0	45.7	45.0	45.7
45°	2590.4	1802.8	229.0	109.4	69.2	47.0	41.6	41.0	40.3	40.3	40.3
47.5°	2869.1	1913.6	190.7	98.0	57.7	40.3	36.3	35.6	34.9	35.6	35.6
50°	3341.1	2116.4	170.5	86.6	47.7	34.2	30.9	30.9	30.9	30.9	31.6
52.5°	4058.9	2515.2	157.1	75.2	38.9	28.9	26.2	26.2	26.9	26.9	27.5
55°	4858.6	3044.3	145.0	63.8	32.9	24.2	21.5	22.2	22.8	23.5	23.5
57.5°	5726.1	3630.5	135.0	52.4	28.2	19.5	18.1	18.8	19.5	20.8	20.8
60°	6772.9	4265.0	120.2	41.0	23.5	15.4	14.1	15.4	17.5	18.8	19.5
62.5°	7922.4	4878.7	101.4	32.2	19.5	12.1	11.4	14.1	16.8	18.1	18.8
65°	8708.0	5071.4	77.9	26.2	14.8	8.7	9.4	12.8	16.1	18.1	18.1
67°	8389.7	4598.1	63.8	22.2	12.1	6.7	8.7	12.8	16.1	17.5	18.1
67.5°	8168.8	4412.7	61.1	21.5	11.4	6.7	8.7	12.8	16.1	18.1	18.1
70°	6646.6	3314.9	51.0	16.1	9.4	6.0	7.4	12.1	15.4	17.5	17.5
72.5°	4618.2	2043.9	45.7	11.4	8.1	5.4	6.7	11.4	14.8	16.8	17.5
75°	2195.6	739.9	38.9	8.7	7.4	4.7	6.0	11.4	14.8	16.8	16.8
77.5°	447.9	171.9	31.6	7.4	6.0	4.7	5.4	10.7	14.1	16.1	16.1
80°	147.0	66.5	23.5	6.7	6.0	4.7	5.4	10.1	14.1	15.4	16.1
82.5°	106.1	33.6	15.4	6.7	6.0	4.7	4.7	10.1	13.4	15.4	15.4
85°	81.2	23.5	10.1	6.7	6.0	4.7	4.7	9.4	12.8	14.8	14.8
87.5°	53.7	9.4	8.1	6.7	6.0	4.7	4.7	9.4	12.1	14.1	14.8
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)