

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: P301818

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301818
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
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-SL4-7027-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15384.1 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

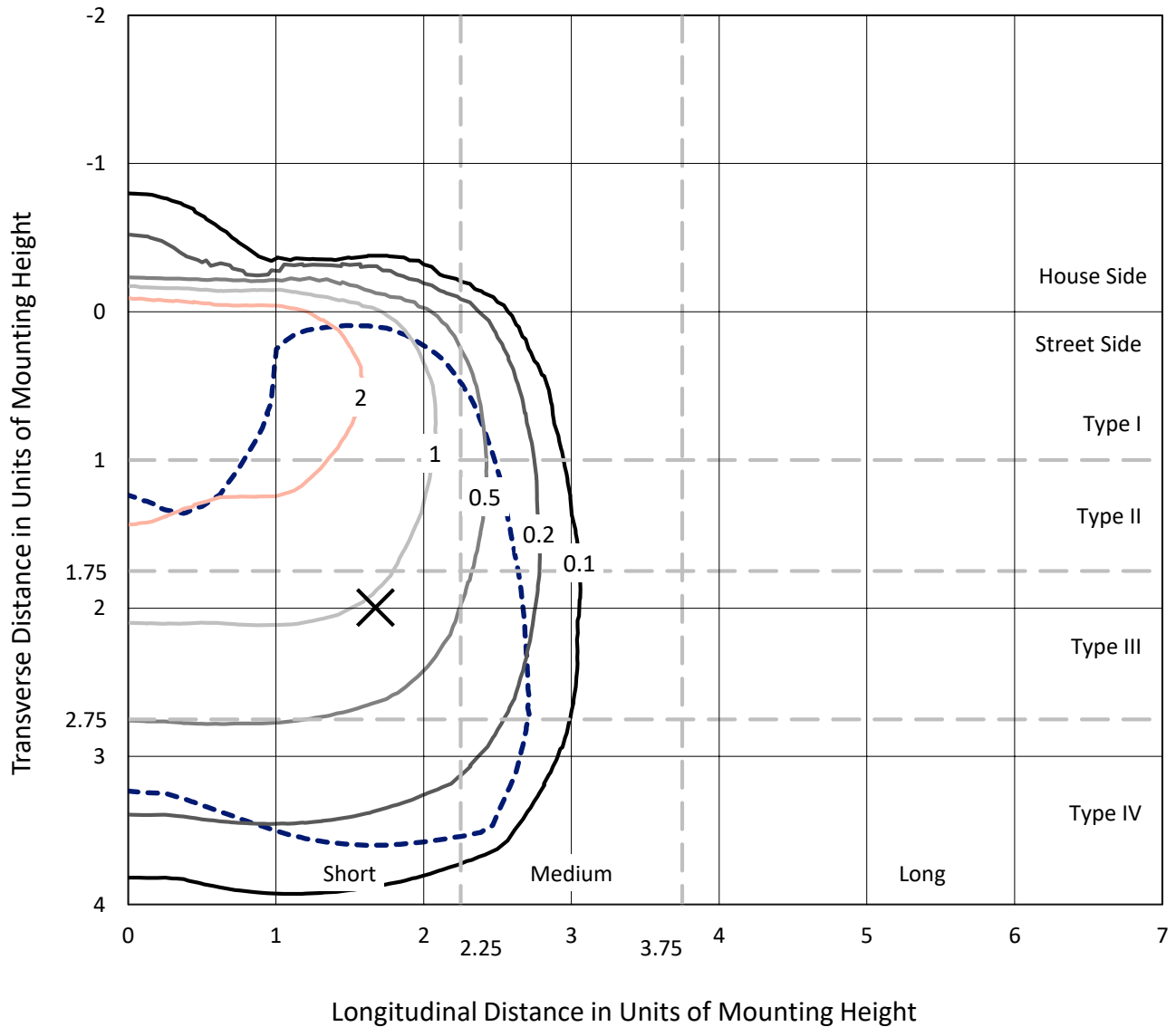
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

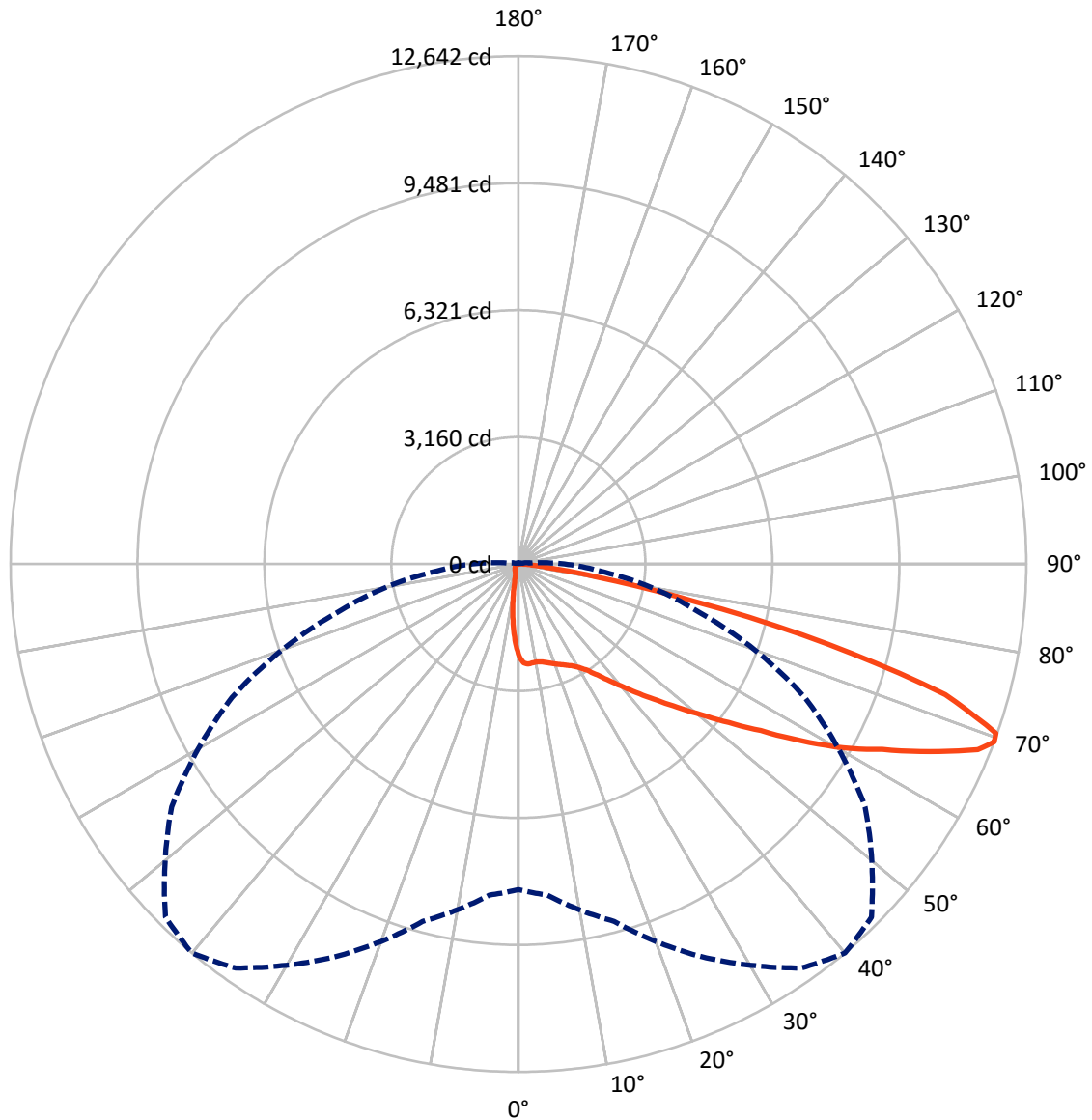


Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	900.1	0.0	900.1
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	14484.0	0.0	14484.0
	% Fixture	94.1	0.0	94.1
Total	Lumens	15384.1	0.0	15384.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.4	1.2
10°-20°	458.3	3.0
20°-30°	771.9	5.0
30°-40°	1263.7	8.2
40°-50°	2188.0	14.2
50°-60°	3446.3	22.4
60°-70°	4500.7	29.3
70°-80°	2318.1	15.1
80°-90°	250.8	1.6
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°	15384.1	100.0
0°-180°	15384.1	100.0



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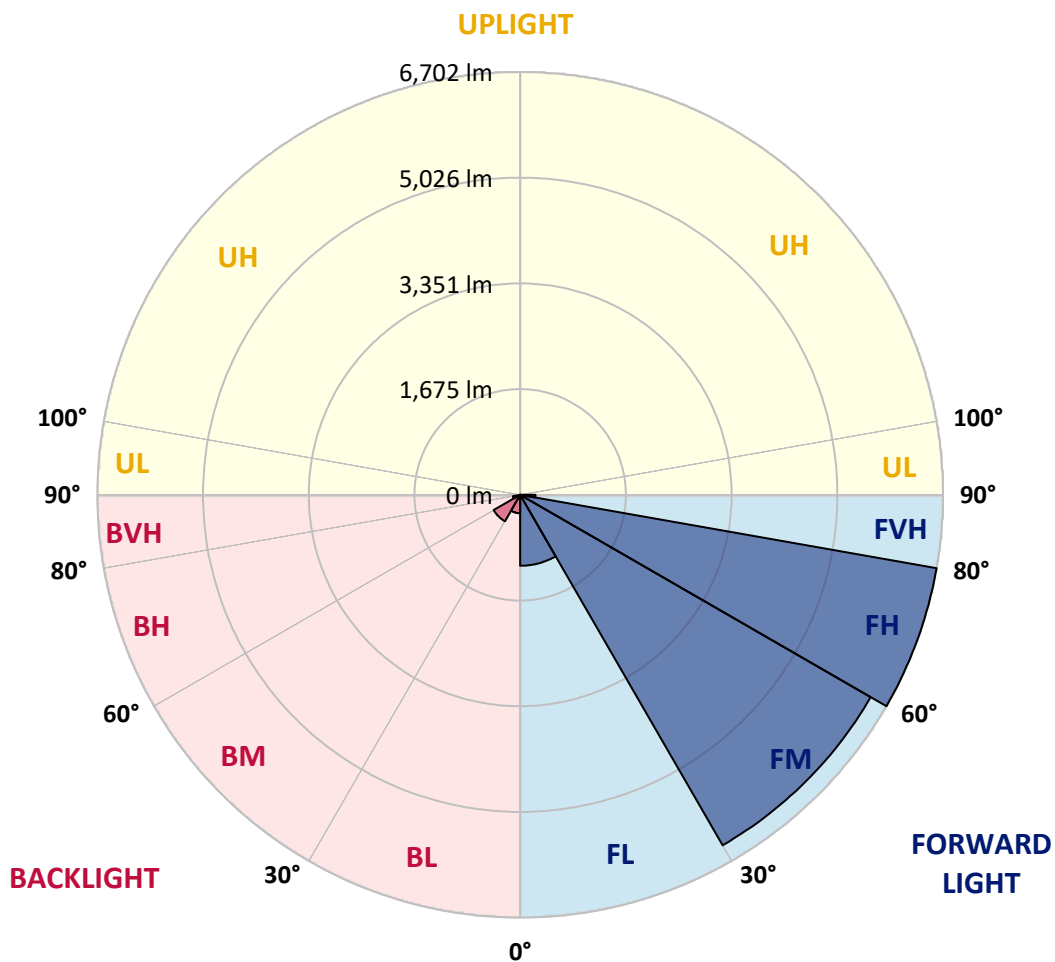
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1125.0	7.3			
FM	(30°-60°)	6414.2	41.7			
FH	(60°-80°)	6701.9	43.6			G3/7500
FVH	(80°-90°)	242.9	1.6			G3/500
BL	(0°-30°)	291.6	1.9	B1/500		
BM	(30°-60°)	483.8	3.1	B1/1000		
BH	(60°-80°)	116.9	0.8	B1/500		G1/500
BVH	(80°-90°)	7.9	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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2298.5	2298.5	2298.5	2298.5	2298.5	2298.5	2298.5	2298.5	2298.5	2298.5	2298.5
2.5°	2523.7	2510.0	2501.7	2490.8	2477.0	2465.1	2460.5	2426.7	2394.6	2350.7	2300.3
5°	2570.4	2565.8	2551.2	2536.5	2520.1	2501.7	2491.7	2451.4	2405.6	2341.5	2253.6
7.5°	2575.0	2569.5	2551.2	2531.0	2508.2	2486.2	2468.8	2428.5	2386.4	2321.3	2214.2
10°	2567.7	2561.3	2547.5	2525.6	2497.2	2476.1	2458.7	2420.2	2384.5	2325.9	2206.9
12.5°	2559.4	2553.0	2546.6	2535.6	2510.9	2496.3	2481.6	2445.0	2412.9	2363.5	2233.4
15°	2567.7	2564.0	2571.3	2566.8	2553.0	2540.2	2525.6	2492.6	2463.3	2422.1	2282.0
17.5°	2602.5	2602.5	2625.4	2628.1	2615.3	2597.0	2575.9	2543.0	2518.2	2483.4	2339.7
20°	2684.0	2681.2	2710.5	2716.0	2684.9	2656.5	2625.4	2585.1	2565.8	2543.9	2396.4
22.5°	2824.1	2811.3	2828.7	2823.2	2761.8	2717.9	2679.4	2629.9	2619.9	2609.8	2459.6
25°	3006.3	2999.0	3010.9	2956.9	2848.8	2789.3	2743.5	2687.6	2687.6	2697.7	2531.0
27.5°	3270.9	3243.5	3203.2	3108.0	2945.9	2869.9	2820.4	2760.9	2776.5	2814.0	2625.4
30°	3542.0	3511.8	3419.3	3272.8	3064.0	2984.3	2926.6	2864.4	2901.0	2969.7	2751.7
32.5°	3809.4	3775.5	3644.6	3459.6	3233.4	3153.7	3097.9	3029.2	3090.6	3205.9	2936.7
35°	4068.5	4038.3	3887.2	3669.3	3458.7	3392.7	3341.5	3281.9	3360.7	3521.9	3197.7
37.5°	4359.7	4326.8	4142.7	3906.5	3732.5	3684.9	3647.3	3587.8	3725.1	3961.4	3561.2
40°	4717.8	4661.9	4413.8	4178.4	4049.3	4026.4	4000.8	3992.5	4205.9	4532.8	4045.6
42.5°	5128.0	5036.5	4697.6	4465.0	4397.3	4413.8	4407.4	4444.0	4807.5	5243.4	4635.4
45°	5538.3	5420.1	5013.6	4770.9	4780.1	4837.7	4873.5	5020.0	5561.2	6058.4	5270.0
47.5°	5886.2	5769.9	5316.7	5101.5	5211.4	5324.9	5422.0	5699.4	6335.9	6860.6	5763.5
50°	6183.9	6074.0	5638.1	5465.0	5712.3	5895.4	6052.9	6464.1	7169.2	7471.4	6109.7
52.5°	6427.4	6354.2	5971.4	5881.7	6284.6	6552.9	6783.6	7276.3	7907.2	7967.7	6378.9
55°	6664.6	6612.4	6329.5	6377.1	6956.7	7322.1	7614.2	8138.0	8542.7	8381.6	6637.1
57.5°	6937.5	6889.9	6737.9	7005.3	7840.4	8300.1	8618.7	8901.7	9102.2	8804.6	6880.7
60°	7215.9	7188.4	7192.1	7703.0	8855.0	9296.4	9472.2	9545.5	9651.7	9203.0	6894.4
62.5°	7481.4	7533.6	7711.3	8479.6	9826.6	10165.4	10254.2	10326.6	10202.0	9266.2	6369.7
65°	7931.0	8016.2	8440.2	9518.9	10895.2	11257.9	11349.4	11101.3	10289.0	8449.3	5181.1
67.5°	8150.8	8306.5	9062.9	10487.7	11931.8	12334.7	12300.9	11151.6	9233.2	6443.0	3325.0
69°	8105.0	8270.8	9206.6	10784.4	12276.1	12641.5	12426.3	10535.3	7866.0	4667.4	2041.1
70°	7923.7	8091.3	9132.5	10773.4	12320.1	12609.5	12193.7	9774.4	6650.9	3412.9	1276.5
72.5°	6617.0	6761.7	8107.8	9737.8	11349.4	11114.1	10201.1	6771.7	3240.7	929.5	287.5
75°	4073.1	4153.7	5817.6	7335.8	8572.0	7967.7	6796.5	3368.9	966.1	262.8	159.3
77.5°	2151.9	2188.6	3184.9	4324.0	5433.9	4496.2	3483.4	1314.1	445.0	164.8	115.4
80°	1271.9	1299.4	1715.1	1977.0	2351.6	1964.2	1392.8	806.7	318.7	103.5	102.6
82.5°	728.0	745.4	1243.5	1098.9	926.7	791.2	693.2	764.6	191.4	69.6	106.2
85°	267.4	271.1	699.6	836.1	551.3	327.8	344.3	633.7	51.3	44.0	83.3
87.5°	124.5	121.8	359.9	511.9	322.3	207.9	268.3	139.2	20.1	28.4	22.9
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°	2298.5	2298.5	2298.5	2298.5	2298.5	2298.5	2298.5	2298.5	2298.5	2298.5	2298.5
2.5°	2271.0	2237.1	2175.7	2112.6	2048.5	1999.0	1950.5	1912.0	1899.2	1875.4	1877.2
5°	2201.4	2139.1	2010.9	1880.9	1745.4	1633.6	1528.3	1443.2	1402.0	1359.8	1359.8
7.5°	2141.0	2050.3	1849.8	1638.2	1419.4	1235.3	1069.6	945.0	876.3	821.4	820.5
10°	2118.1	1995.4	1715.1	1412.0	1107.1	856.2	659.3	532.9	467.9	425.8	424.0
12.5°	2128.1	1976.1	1611.7	1203.3	820.5	550.3	381.9	300.4	272.9	260.1	260.1
15°	2157.4	1970.6	1508.2	999.0	579.7	344.3	253.7	231.7	229.8	229.8	229.8
17.5°	2193.1	1972.5	1402.0	800.3	394.7	246.3	218.9	216.1	217.9	217.9	217.9
20°	2229.8	1973.4	1287.5	616.3	278.4	214.3	206.0	205.1	207.0	207.0	207.9
22.5°	2274.6	1978.0	1173.0	460.6	229.8	202.4	196.0	196.0	196.9	196.9	196.0
25°	2325.9	1987.1	1054.0	341.6	209.7	194.1	188.6	187.7	188.6	187.7	186.8
27.5°	2390.0	1999.9	921.2	267.4	200.5	185.9	181.3	181.3	180.4	179.5	178.6
30°	2470.6	2014.6	772.0	227.1	191.4	178.6	174.0	173.1	172.2	170.3	170.3
32.5°	2593.3	2046.6	624.5	206.0	181.3	168.5	164.8	164.8	163.0	161.2	160.3
35°	2782.0	2109.8	492.7	193.2	170.3	157.5	152.9	152.9	151.1	150.2	149.3
37.5°	3042.9	2206.0	382.8	181.3	159.3	145.6	141.0	140.1	138.3	136.4	135.5
40°	3390.0	2325.0	301.3	170.3	148.3	133.7	130.0	128.2	124.5	121.8	121.8
42.5°	3825.9	2460.5	244.5	158.4	135.5	122.7	120.0	117.2	110.8	108.1	107.1
45°	4281.9	2582.3	207.0	144.7	122.7	111.7	109.9	105.3	97.1	94.3	94.3
47.5°	4610.6	2610.7	182.2	131.9	110.8	99.8	98.9	90.7	83.3	81.5	80.6
50°	4815.8	2554.9	162.1	119.0	99.8	88.8	86.1	76.0	71.4	69.6	68.7
52.5°	4954.0	2455.0	145.6	108.1	89.7	78.8	72.3	65.0	61.4	59.5	59.5
55°	5064.8	2314.0	129.1	98.0	81.5	70.5	61.4	55.9	52.2	50.4	50.4
57.5°	5096.0	2122.6	112.6	89.7	73.3	62.3	52.2	48.5	44.0	43.0	43.0
60°	4869.8	1777.4	99.8	79.7	65.9	54.0	45.8	41.2	36.6	35.7	34.8
62.5°	4273.7	1375.4	87.9	70.5	57.7	46.7	39.4	33.9	30.2	30.2	30.2
65°	3260.0	922.1	76.9	61.4	50.4	39.4	33.9	27.5	25.6	25.6	26.6
67.5°	1951.4	501.8	65.9	52.2	43.0	33.0	28.4	23.8	22.9	23.8	23.8
69°	1143.7	294.9	59.5	46.7	37.5	29.3	24.7	21.1	22.9	23.8	23.8
70°	706.0	198.7	54.9	42.1	33.9	26.6	22.9	20.1	22.0	22.9	22.9
72.5°	196.9	102.6	44.0	33.0	27.5	22.0	18.3	18.3	21.1	22.0	22.0
75°	128.2	76.0	33.9	24.7	21.1	17.4	15.6	17.4	20.1	21.1	21.1
77.5°	106.2	62.3	27.5	20.1	17.4	16.5	14.7	15.6	18.3	19.2	19.2
80°	97.1	44.0	22.0	18.3	15.6	14.7	13.7	12.8	16.5	17.4	17.4
82.5°	92.5	34.8	19.2	16.5	14.7	12.8	11.9	12.8	14.7	15.6	16.5
85°	57.7	22.9	17.4	15.6	12.8	11.9	11.9	11.9	13.7	14.7	14.7
87.5°	21.1	18.3	15.6	12.8	11.0	11.0	11.0	11.0	11.9	13.7	13.7
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)