

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: P299587

Luminaire Tested: **GLNA-AF-03-LED-E1-SL2-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299587
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-03-LED-E1-SL2-7027-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K CCT 1050mA 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: 11879.2 lumens
Efficiency: N/A
Efficacy: 71.6 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

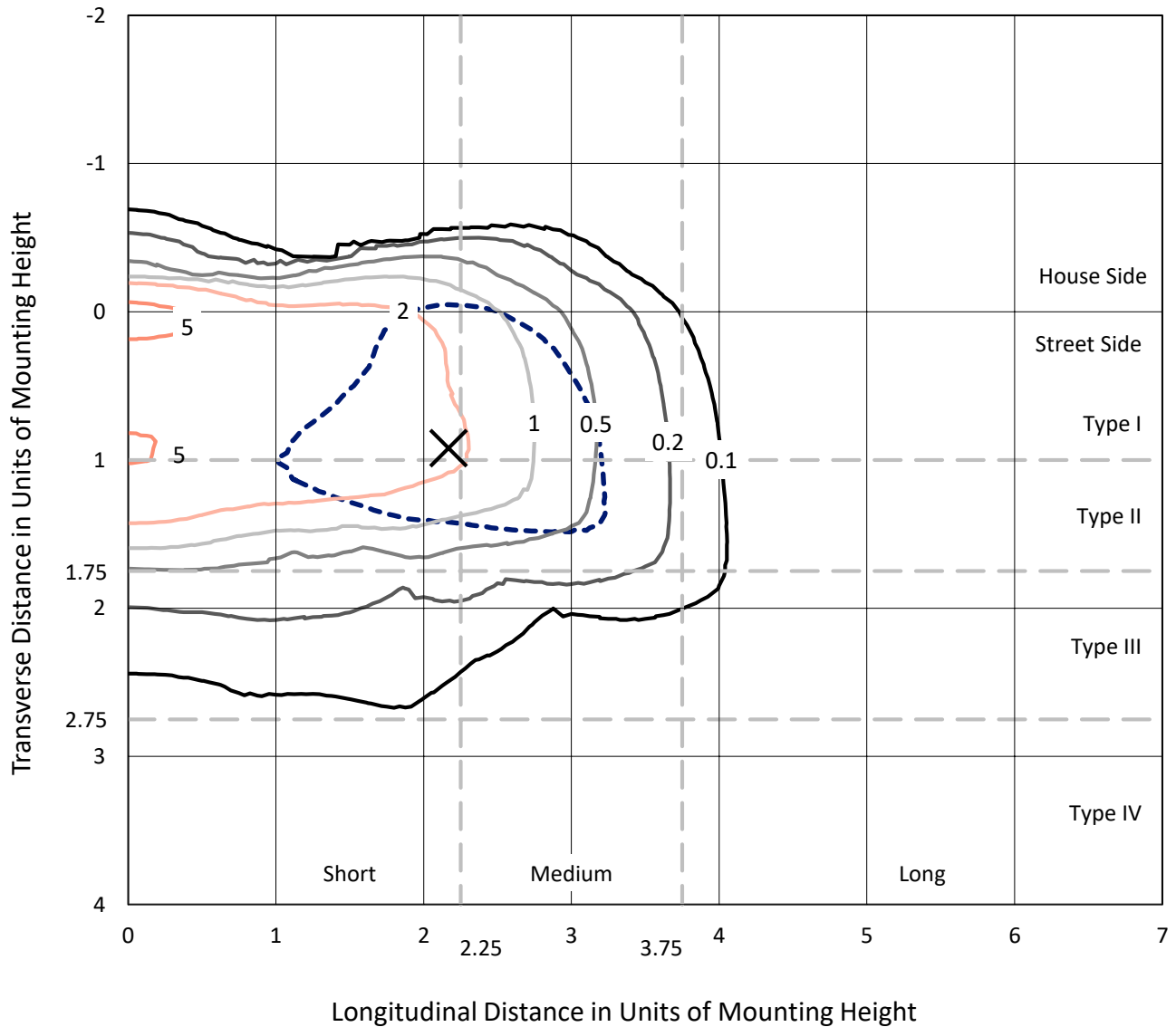
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299587
 CATALOG NUMBER: GLNA-AF-03-LED-E1-SL2-7027-HSS

Iso-Footcandle Lines of Horizontal Illumination

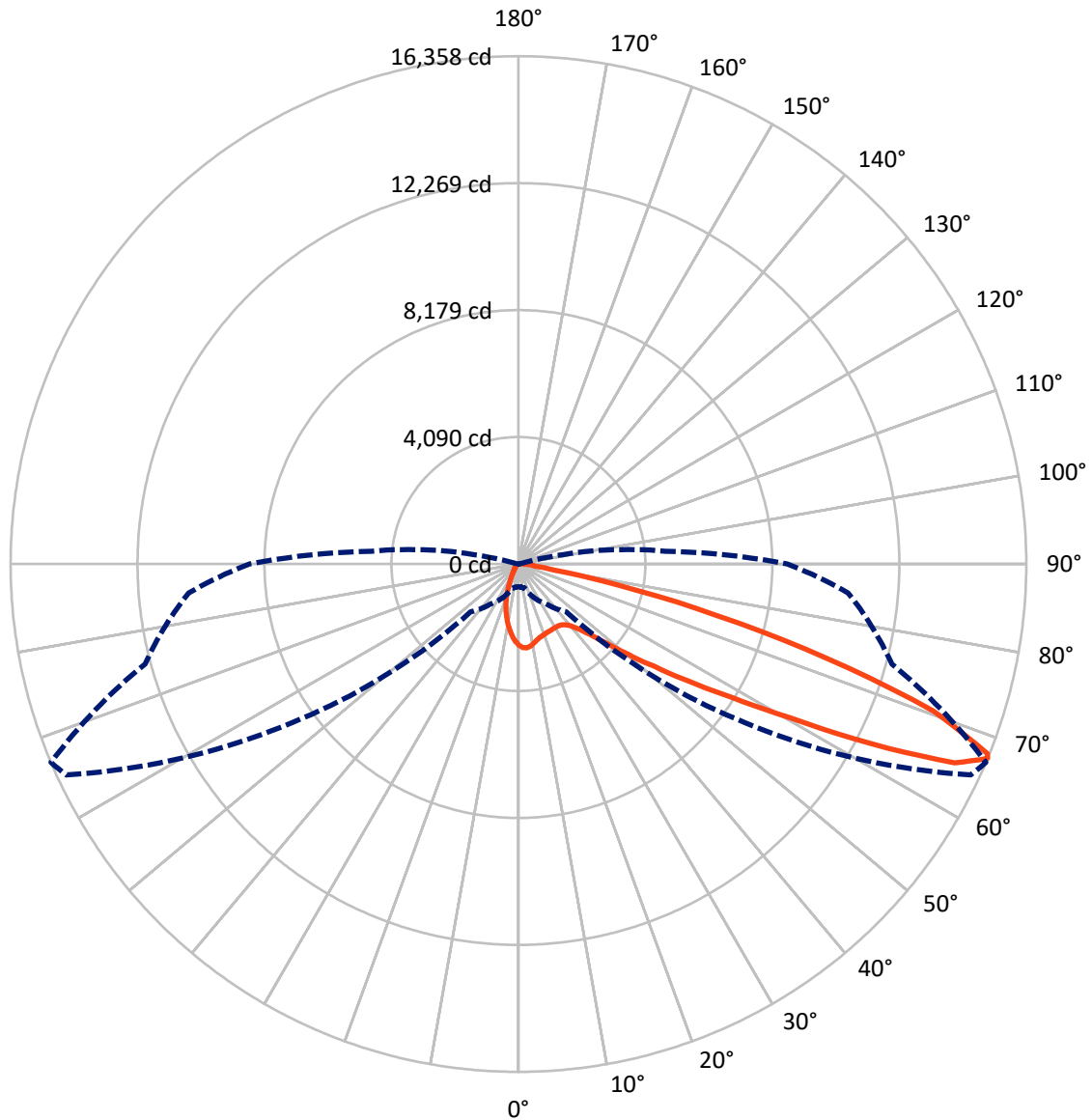
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P299587
CATALOG NUMBER: GLNA-AF-03-LED-E1-SL2-7027-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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CATALOG NUMBER: GLNA-AF-03-LED-E1-SL2-7027-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1233.4	0.0	1233.4
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	10645.8	0.0	10645.8
	% Fixture	89.6	0.0	89.6
Total	Lumens	11879.2	0.0	11879.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.2	1.8
10°-20°	453.7	3.8
20°-30°	659.6	5.6
30°-40°	1029.1	8.7
40°-50°	1823.0	15.3
50°-60°	2884.7	24.3
60°-70°	3304.0	27.8
70°-80°	1370.5	11.5
80°-90°	141.6	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°	11879.2	100.0
0°-180°	11879.2	100.0



REPORT NUMBER: P299587

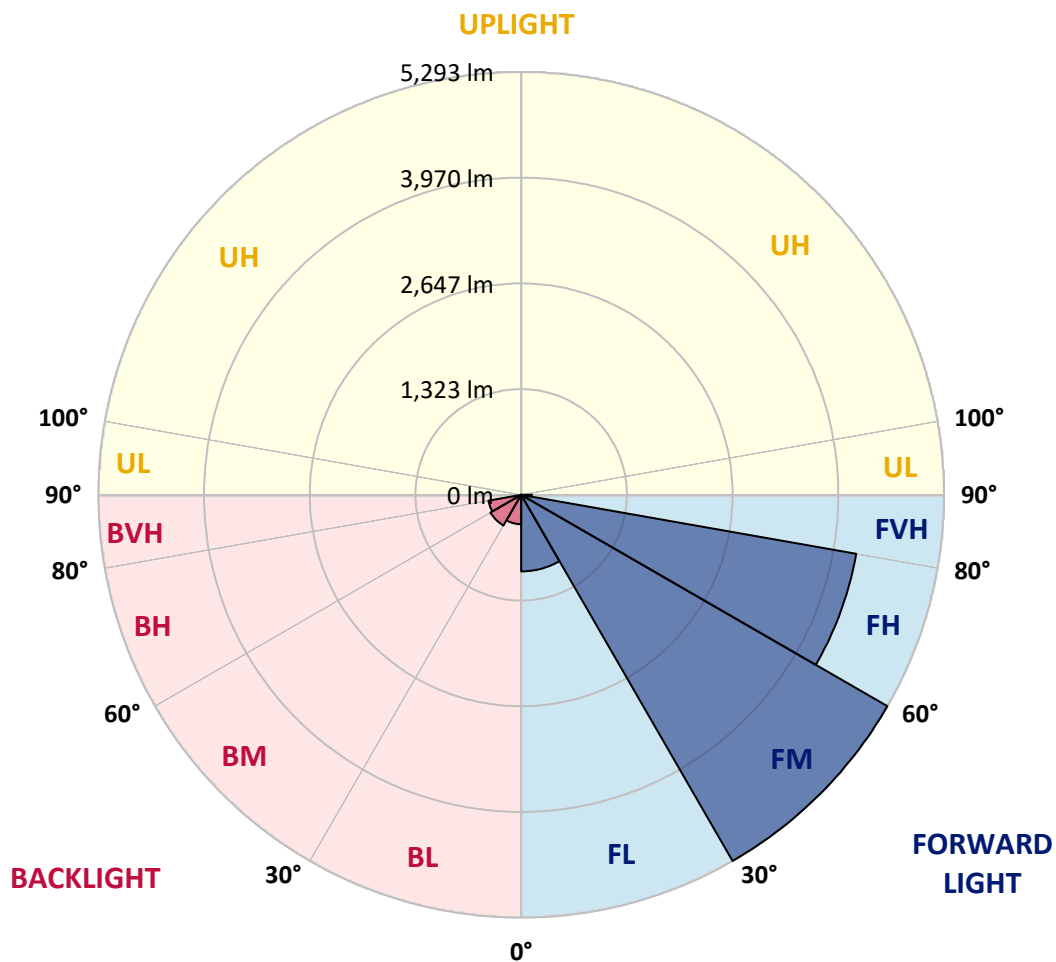
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	958.5	8.1			
FM	(30°-60°)	5293.4	44.6			
FH	(60°-80°)	4258.7	35.9			G2/5000
FVH	(80°-90°)	135.2	1.1			G2/225
BL	(0°-30°)	368.1	3.1	B1/500		
BM	(30°-60°)	443.3	3.7	B1/1000		
BH	(60°-80°)	415.7	3.5	B1/500		G1/500
BVH	(80°-90°)	6.4	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





REPORT NUMBER: P299587

CATALOG NUMBER: GLNA-AF-03-LED-E1-SL2-7027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2619.8	2619.8	2619.8	2619.8	2619.8	2619.8	2619.8	2619.8	2619.8	2619.8	2619.8
2.5°	2708.5	2714.0	2713.3	2717.5	2727.2	2727.9	2718.2	2699.5	2695.3	2671.1	2628.8
5°	2497.9	2513.8	2523.5	2563.0	2607.3	2660.7	2700.9	2715.4	2713.3	2696.0	2632.3
7.5°	2257.4	2273.4	2284.4	2330.9	2389.8	2481.2	2585.9	2671.8	2679.4	2698.1	2629.5
10°	2097.4	2100.1	2115.4	2159.7	2221.4	2314.9	2439.7	2590.0	2612.9	2681.5	2622.6
12.5°	1965.7	1967.8	1987.9	2035.7	2101.5	2195.8	2326.7	2500.6	2536.0	2660.7	2621.2
15°	1872.2	1879.8	1897.8	1947.7	2017.7	2111.2	2245.6	2434.8	2477.1	2653.1	2633.7
17.5°	1841.0	1849.3	1854.9	1890.9	1954.6	2046.1	2184.0	2391.8	2439.7	2657.2	2657.9
20°	1873.6	1879.8	1867.3	1876.3	1915.8	1997.6	2132.0	2355.1	2411.9	2662.1	2689.1
22.5°	1994.8	1997.6	1963.6	1924.1	1917.2	1962.3	2091.1	2326.0	2387.0	2675.2	2725.8
25°	2202.7	2197.8	2142.4	2057.2	1976.8	1956.0	2066.9	2308.0	2374.5	2689.1	2763.9
27.5°	2453.5	2460.4	2384.2	2260.2	2107.1	1997.6	2063.4	2300.4	2369.0	2698.8	2797.2
30°	2758.4	2768.1	2680.8	2524.9	2305.2	2100.1	2095.3	2299.0	2365.5	2692.6	2800.0
32.5°	3069.5	3081.3	3012.7	2851.9	2569.9	2272.0	2167.4	2314.2	2372.4	2671.1	2784.0
35°	3395.1	3411.8	3366.0	3228.2	2928.8	2520.0	2294.1	2360.7	2405.0	2669.0	2768.1
37.5°	3844.8	3860.1	3774.2	3628.0	3363.3	2852.6	2497.9	2448.0	2481.9	2702.3	2772.2
40°	4516.2	4514.2	4292.4	4068.6	3840.7	3275.3	2784.0	2605.9	2623.3	2802.7	2823.5
42.5°	5247.9	5244.5	4916.7	4576.5	4370.7	3795.6	3160.3	2878.9	2867.2	2987.7	2956.5
45°	5811.9	5811.2	5543.8	5160.6	5008.9	4392.9	3646.7	3258.6	3240.6	3288.4	3201.8
47.5°	6052.4	6056.5	5922.1	5652.6	5716.3	5200.8	4259.9	3808.8	3781.8	3762.4	3630.7
50°	5865.3	5873.6	5884.7	5832.0	6235.3	6286.6	5082.3	4584.1	4571.0	4484.4	4278.6
52.5°	5254.2	5296.4	5426.7	5593.7	6415.4	7328.7	6371.8	5547.3	5476.6	5384.4	5157.9
55°	4224.5	4271.0	4518.3	4923.7	6147.3	8013.2	8178.8	6788.9	6671.1	6396.0	6069.0
57.5°	2795.8	2867.9	3226.8	3742.3	5368.5	8123.4	9981.7	8512.1	8101.9	7348.8	6980.1
60°	1540.3	1609.6	1999.0	2466.0	3877.4	7578.8	11194.3	10755.7	10030.9	8413.7	8086.7
62.5°	948.6	986.0	1273.5	1708.0	2325.3	5981.7	11445.1	13575.0	12736.0	9785.0	9423.3
65°	755.2	771.2	911.8	1396.2	1667.1	3558.0	10635.1	15724.4	15444.5	11445.1	10619.9
67°	733.1	739.3	805.8	1198.7	1571.5	2181.2	8909.8	16074.3	16358.4	12449.8	10657.3
67.5°	737.9	744.9	807.9	1144.0	1568.7	2004.5	8315.3	15936.4	16295.3	12529.5	10491.7
70°	711.6	733.1	925.0	1143.3	1491.8	1665.7	4979.8	13807.9	14181.3	11641.9	8902.2
72.5°	252.2	253.6	399.8	925.0	1622.0	1683.7	2500.6	10122.4	10398.9	8905.7	6418.2
75°	149.7	127.5	133.0	263.3	1550.0	1635.2	1442.6	6468.1	6571.3	5103.1	3250.3
77.5°	103.2	90.1	92.8	116.4	590.3	1612.3	1146.0	3373.0	3262.8	1789.7	692.2
80°	58.9	52.0	55.4	101.9	214.8	1504.3	1080.9	1367.8	1166.1	303.5	191.2
82.5°	31.2	26.3	31.9	83.8	149.7	937.5	1083.0	661.0	523.8	102.5	130.3
85°	11.1	9.0	15.2	57.5	99.8	287.5	1004.0	555.7	436.5	49.9	99.1
87.5°	2.1	2.1	6.2	23.6	40.2	88.0	593.8	329.8	221.0	29.8	67.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299587

CATALOG NUMBER: GLNA-AF-03-LED-E1-SL2-7027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2619.8	2619.8	2619.8	2619.8	2619.8	2619.8	2619.8	2619.8	2619.8	2619.8	2619.8
2.5°	2611.5	2581.7	2541.5	2492.3	2434.1	2382.8	2344.7	2305.2	2296.9	2283.1	2281.0
5°	2594.2	2542.9	2443.1	2328.8	2206.8	2096.7	2007.3	1927.6	1892.3	1861.8	1858.3
7.5°	2568.5	2491.6	2321.9	2137.6	1947.0	1773.8	1626.9	1523.0	1427.3	1381.6	1374.7
10°	2538.7	2428.6	2185.4	1929.7	1666.4	1421.8	1203.5	1020.6	909.8	843.9	835.6
12.5°	2511.0	2366.9	2046.1	1714.2	1364.3	1037.3	756.6	582.0	465.6	418.5	413.0
15°	2497.9	2317.0	1915.8	1493.9	1048.3	660.3	413.7	320.1	282.0	270.9	270.2
17.5°	2496.5	2274.7	1788.3	1265.9	734.5	383.9	269.5	246.0	238.4	235.6	235.6
20°	2495.8	2234.6	1660.9	1029.6	466.3	255.7	224.5	219.0	213.4	209.9	209.9
22.5°	2503.4	2198.5	1527.8	788.5	293.8	207.2	197.5	191.9	185.0	180.2	179.5
25°	2511.0	2170.8	1392.0	561.2	212.7	180.2	170.5	162.8	153.1	146.9	146.2
27.5°	2512.4	2136.2	1246.5	375.5	178.1	157.3	144.8	133.0	121.9	115.7	115.0
30°	2491.6	2078.0	1085.1	253.6	157.3	136.5	119.9	107.4	97.0	92.2	92.2
32.5°	2450.7	2005.9	907.7	191.2	140.0	117.1	99.1	87.3	80.4	78.3	77.6
35°	2414.0	1928.3	725.5	162.1	125.4	99.1	81.1	73.4	69.3	68.6	67.9
37.5°	2392.5	1865.9	554.3	146.9	111.6	83.1	68.6	63.1	61.0	59.6	60.3
40°	2409.2	1814.0	409.5	134.4	97.7	69.3	58.2	55.4	53.4	52.7	52.7
42.5°	2481.9	1805.0	304.2	123.3	84.5	57.5	50.6	48.5	47.1	46.4	47.1
45°	2673.2	1860.4	236.3	112.9	71.4	48.5	43.0	42.3	41.6	41.6	41.6
47.5°	2960.7	1974.7	196.8	101.2	59.6	41.6	37.4	36.7	36.0	36.7	36.7
50°	3447.8	2184.0	176.0	89.4	49.2	35.3	31.9	31.9	31.9	31.9	32.6
52.5°	4188.5	2595.6	162.1	77.6	40.2	29.8	27.0	27.0	27.7	27.7	28.4
55°	5013.7	3141.6	149.7	65.8	34.0	24.9	22.2	22.9	23.6	24.3	24.3
57.5°	5908.9	3746.4	139.3	54.0	29.1	20.1	18.7	19.4	20.1	21.5	21.5
60°	6989.2	4401.2	124.0	42.3	24.3	15.9	14.6	15.9	18.0	19.4	20.1
62.5°	8175.4	5034.5	104.6	33.3	20.1	12.5	11.8	14.6	17.3	18.7	19.4
65°	8986.1	5233.4	80.4	27.0	15.2	9.0	9.7	13.2	16.6	18.7	18.7
67°	8657.6	4744.9	65.8	22.9	12.5	6.9	9.0	13.2	16.6	18.0	18.7
67.5°	8429.7	4553.7	63.1	22.2	11.8	6.9	9.0	13.2	16.6	18.7	18.7
70°	6858.9	3420.8	52.7	16.6	9.7	6.2	7.6	12.5	15.9	18.0	18.0
72.5°	4765.7	2109.1	47.1	11.8	8.3	5.5	6.9	11.8	15.2	17.3	18.0
75°	2265.7	763.6	40.2	9.0	7.6	4.9	6.2	11.8	15.2	17.3	17.3
77.5°	462.2	177.4	32.6	7.6	6.2	4.9	5.5	11.1	14.6	16.6	16.6
80°	151.7	68.6	24.3	6.9	6.2	4.9	5.5	10.4	14.6	15.9	16.6
82.5°	109.5	34.6	15.9	6.9	6.2	4.9	4.9	10.4	13.9	15.9	15.9
85°	83.8	24.3	10.4	6.9	6.2	4.9	4.9	9.7	13.2	15.2	15.2
87.5°	55.4	9.7	8.3	6.9	6.2	4.9	4.9	9.7	12.5	14.6	15.2
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)