

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: P301095

Luminaire Tested: **GLNA-AF-03-LED-E1-T3R**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301095
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
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-T3R
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18514.9 lumens
Efficiency: N/A
Efficacy: 111.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G3

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

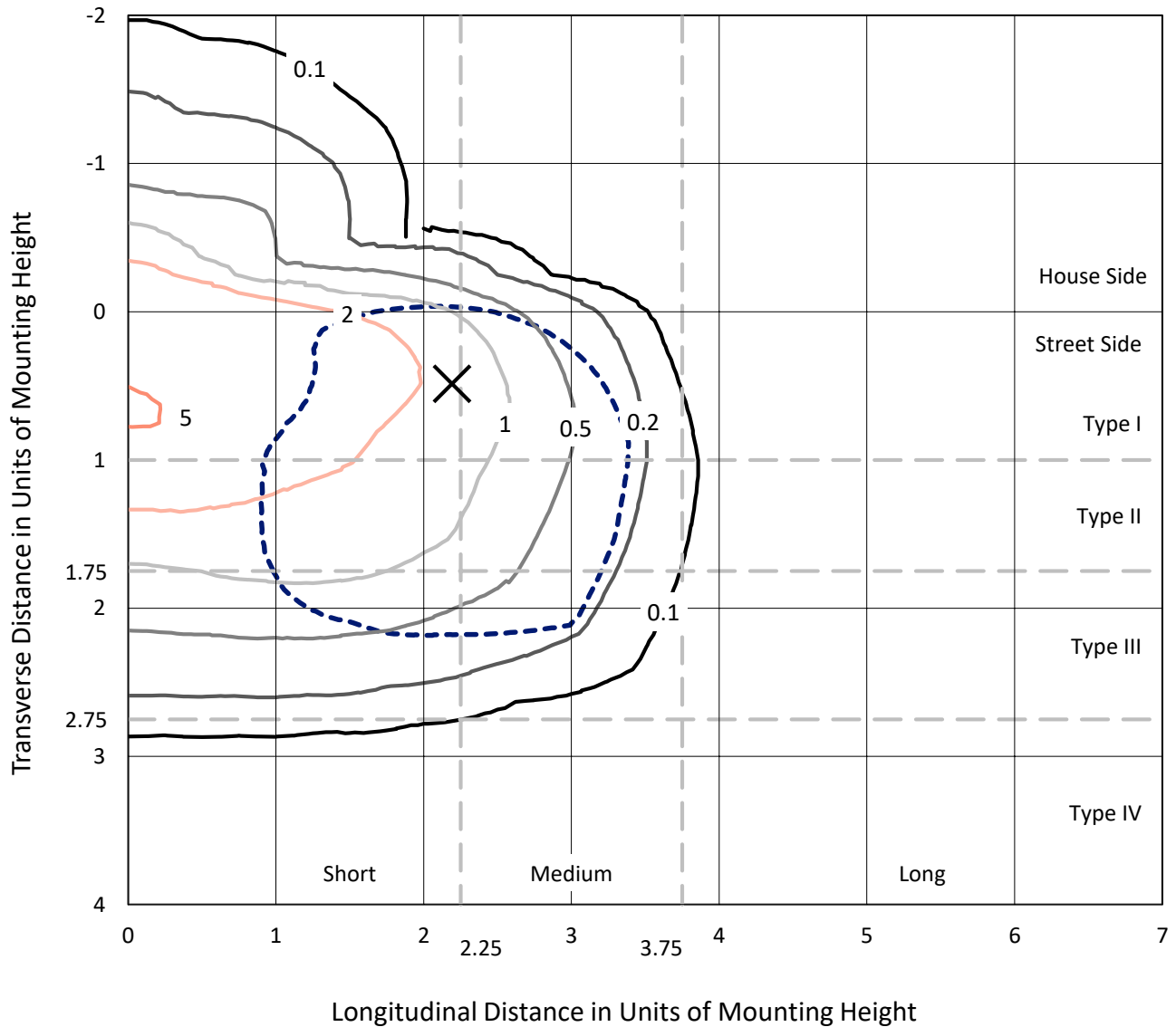


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Iso-Footcandle Lines of Horizontal Illumination

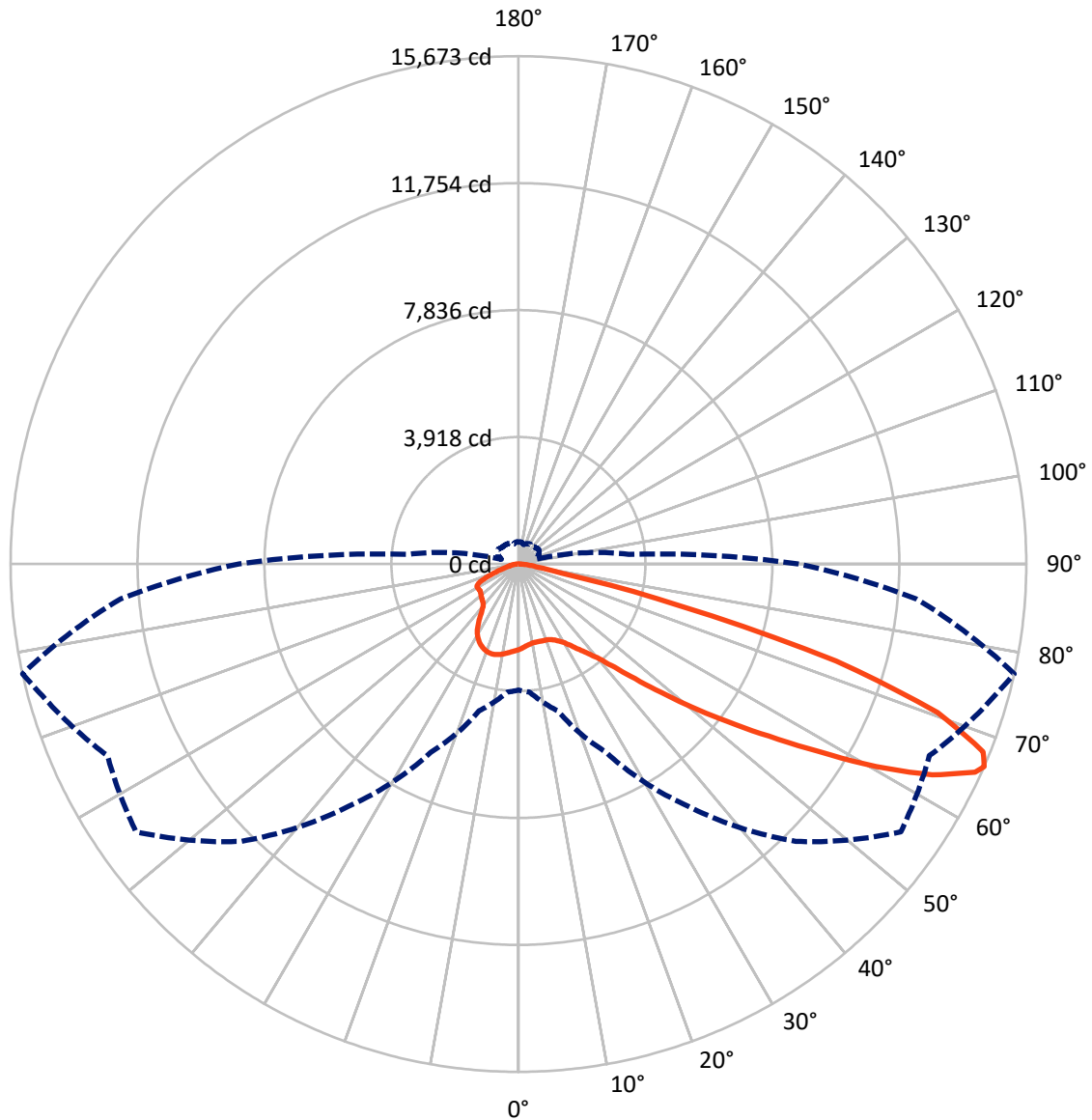
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3163.2	0.0	3163.2
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	15351.7	0.0	15351.7
	% Fixture	82.9	0.0	82.9
Total	Lumens	18514.9	0.0	18514.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.7	1.3
10°-20°	665.0	3.6
20°-30°	1135.0	6.1
30°-40°	1816.9	9.8
40°-50°	2806.9	15.2
50°-60°	3981.1	21.5
60°-70°	5325.7	28.8
70°-80°	2312.8	12.5
80°-90°	235.8	1.3
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°	18514.9	100.0
0°-180°	18514.9	100.0



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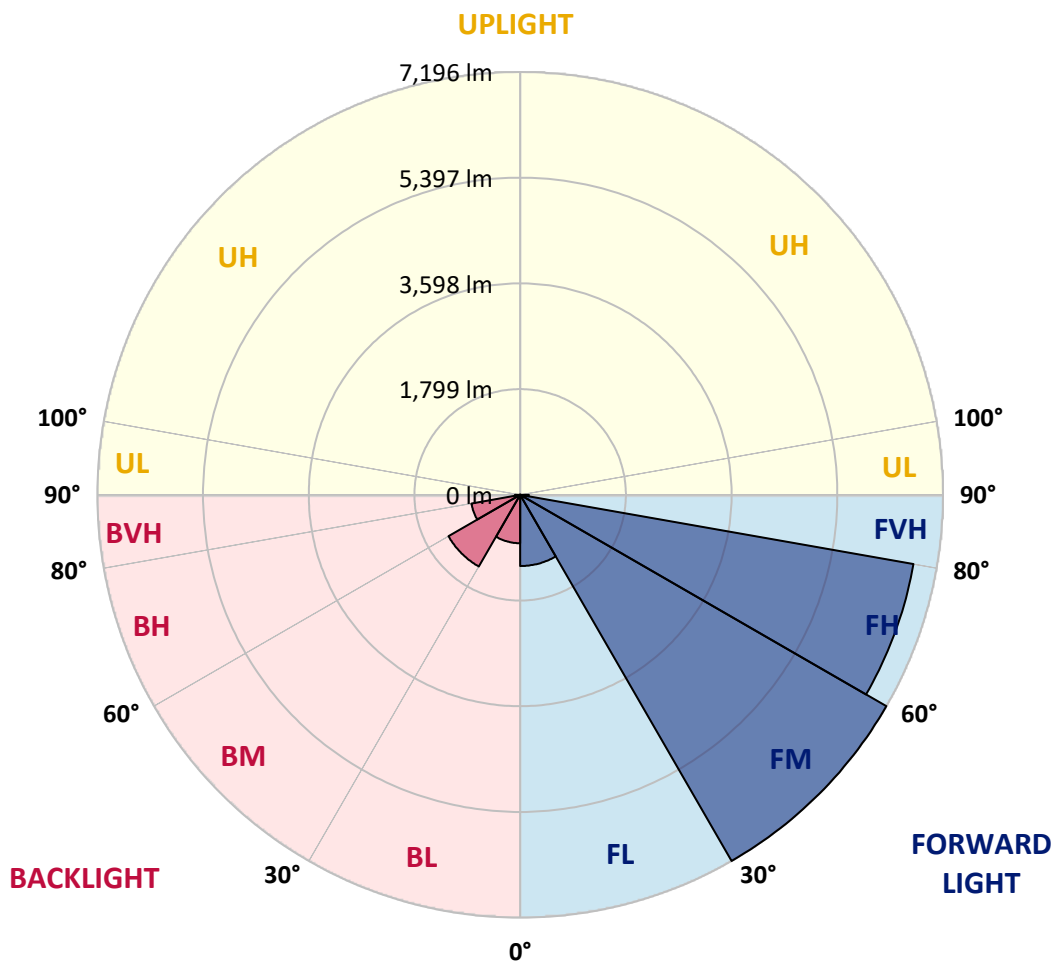
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1211.9	6.5			
FM	(30°-60°)	7195.8	38.9			
FH	(60°-80°)	6796.1	36.7			G3/7500
FVH	(80°-90°)	147.9	0.8			G2/225
BL	(0°-30°)	823.8	4.4	B2/1000		
BM	(30°-60°)	1409.0	7.6	B2/2500		
BH	(60°-80°)	842.4	4.5	B2/1000		G2/1000
BVH	(80°-90°)	87.9	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	2638.4	2638.4	2638.4	2638.4	2638.4	2638.4	2638.4	2638.4	2638.4	2638.4	2638.4
2.5°	2334.1	2349.7	2363.0	2375.1	2399.5	2439.8	2486.1	2523.7	2578.0	2588.6	2617.5
5°	2119.8	2119.8	2130.1	2148.7	2181.8	2242.2	2305.2	2389.2	2507.3	2535.1	2612.2
7.5°	2015.7	2016.5	2022.6	2038.2	2067.1	2122.2	2191.3	2290.4	2450.4	2496.7	2627.8
10°	2054.1	2045.4	2032.1	2024.4	2028.7	2061.0	2126.7	2236.9	2415.4	2474.7	2663.1
12.5°	2269.2	2252.8	2207.2	2146.8	2089.1	2065.5	2103.9	2211.5	2400.6	2469.7	2709.4
15°	2620.9	2614.1	2529.0	2404.0	2264.2	2146.8	2120.6	2201.9	2402.2	2475.8	2764.5
17.5°	3062.0	3052.2	2940.4	2758.4	2530.1	2301.8	2179.1	2209.9	2408.3	2486.1	2817.8
20°	3507.2	3477.3	3356.8	3139.8	2846.6	2512.3	2276.3	2230.0	2416.2	2497.5	2873.9
22.5°	3839.6	3815.0	3706.7	3495.8	3158.1	2756.6	2406.7	2265.0	2441.6	2530.9	2942.8
25°	4131.8	4133.4	4025.9	3822.2	3473.1	3015.6	2574.6	2358.5	2506.3	2599.0	3037.3
27.5°	4493.1	4472.2	4371.5	4169.4	3784.5	3277.0	2777.5	2487.2	2602.7	2696.2	3161.6
30°	4925.1	4910.3	4794.0	4564.9	4129.9	3557.8	3009.3	2636.6	2726.9	2823.8	3324.2
32.5°	5433.4	5426.5	5305.7	5010.9	4528.9	3888.6	3281.6	2834.4	2912.3	3013.0	3557.8
35°	6030.2	6031.0	5888.5	5534.1	4965.4	4273.5	3590.1	3089.0	3138.0	3242.9	3836.2
37.5°	6397.6	6442.1	6388.8	6027.5	5459.6	4703.9	3990.9	3426.7	3395.2	3501.1	4134.5
40°	6476.2	6530.5	6699.2	6515.7	6012.7	5178.1	4346.1	3751.2	3712.0	3841.2	4518.5
42.5°	6366.0	6441.3	6798.3	6927.6	6599.7	5762.4	4823.7	4233.2	4183.5	4357.5	4996.1
45°	6300.3	6356.5	6769.4	7142.1	7108.7	6423.0	5431.8	4838.5	4820.2	5048.5	5547.3
47.5°	6186.7	6237.6	6634.6	7191.9	7408.1	7028.2	6162.3	5578.8	5614.6	5913.9	6169.2
50°	6247.9	6268.8	6484.2	7065.0	7494.7	7471.9	6978.4	6436.0	6558.6	6932.1	6873.5
52.5°	6239.2	6293.5	6466.7	6856.8	7506.1	7745.8	7782.3	7392.2	7650.4	8079.0	7654.7
55°	5044.3	5143.9	6261.1	6804.4	7546.1	8014.1	8498.0	8400.0	8881.0	9380.6	8536.4
57.5°	4816.8	4879.8	5499.1	6914.6	7759.5	8526.9	9294.0	9509.3	10314.0	10894.1	9610.8
60°	4772.0	4849.9	5491.1	7049.4	8192.6	9362.3	10474.3	10852.2	12057.7	12692.9	10856.5
62.5°	4632.9	4716.9	5439.5	7031.7	8807.7	10518.0	11985.1	12279.9	13711.0	14328.7	11898.5
65°	4192.2	4270.9	5018.9	6749.3	9222.5	11751.5	13773.0	13588.7	15016.4	15480.7	12417.9
66°	3890.2	3967.3	4687.2	6416.9	9126.0	12101.4	14406.6	13993.7	15308.5	15672.5	12316.5
67.5°	3338.2	3398.6	4043.3	5672.3	8614.3	12199.4	14939.3	14298.0	15339.0	15467.7	11736.7
70°	2109.2	2126.7	2627.8	3915.7	6521.0	10579.9	14128.2	13542.3	14074.2	13725.9	9839.1
72.5°	915.1	909.1	1261.6	1991.9	3691.8	7099.2	11428.6	11174.1	11040.3	10245.9	6887.6
75°	509.1	516.2	655.3	924.7	1500.3	3487.1	7476.1	7154.3	6040.5	5154.5	3123.2
77.5°	408.4	418.2	543.3	656.1	673.6	1216.0	3498.5	2846.6	1713.7	1375.2	867.7
80°	322.9	340.4	474.1	510.9	454.0	501.1	1130.2	903.8	678.1	621.9	449.8
82.5°	255.3	267.8	406.8	386.7	317.6	337.7	541.4	527.6	441.0	401.6	259.8
85°	183.8	206.3	334.3	291.4	208.2	227.5	359.4	344.6	252.7	206.3	114.7
87.5°	75.2	98.0	236.3	193.4	116.3	106.0	179.3	168.7	119.7	87.4	56.9
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°	2638.4	2638.4	2638.4	2638.4	2638.4	2638.4	2638.4	2638.4	2638.4	2638.4	2638.4
2.5°	2635.8	2656.7	2684.0	2700.7	2709.4	2715.5	2725.0	2724.3	2726.9	2727.7	2731.1
5°	2653.3	2688.2	2727.7	2738.3	2738.3	2728.5	2719.0	2703.1	2697.0	2695.4	2697.0
7.5°	2698.8	2737.2	2771.4	2759.2	2733.0	2694.3	2644.5	2600.8	2577.2	2569.3	2567.7
10°	2756.6	2802.9	2817.0	2770.6	2693.5	2600.8	2502.0	2430.2	2389.2	2377.8	2374.3
12.5°	2826.5	2870.2	2851.1	2753.1	2610.4	2461.0	2324.3	2209.9	2124.0	2097.0	2095.2
15°	2903.6	2937.7	2870.2	2698.8	2486.1	2265.8	2022.6	1825.0	1718.3	1684.1	1681.4
17.5°	2975.4	2992.8	2858.8	2604.3	2303.4	1946.6	1623.7	1471.4	1434.8	1443.6	1445.2
20°	3036.5	3036.5	2820.4	2468.6	2015.7	1525.7	1321.7	1319.3	1345.6	1371.8	1377.1
22.5°	3103.8	3063.6	2753.1	2277.1	1607.8	1248.4	1218.7	1243.1	1272.7	1301.6	1306.1
25°	3187.0	3085.5	2659.4	1986.8	1264.0	1133.7	1145.1	1165.2	1180.0	1198.6	1201.2
27.5°	3279.7	3113.4	2536.2	1586.9	1097.1	1062.2	1070.9	1077.8	1075.9	1083.1	1084.7
30°	3390.7	3145.9	2367.2	1240.4	1028.0	1000.7	985.1	979.0	979.0	990.4	994.6
32.5°	3539.5	3193.9	2124.8	1062.9	994.6	957.0	906.4	883.6	892.4	930.8	939.5
35°	3703.2	3245.5	1796.9	1002.6	987.7	936.9	858.2	816.1	817.1	852.9	864.3
37.5°	3881.5	3311.2	1437.2	991.2	1003.4	937.9	832.8	775.0	751.5	751.5	756.0
40°	4109.8	3378.5	1163.6	999.1	1036.7	948.3	819.8	742.7	676.2	678.1	681.5
42.5°	4407.3	3436.2	1016.6	1015.5	1077.0	962.3	818.7	699.8	642.1	681.5	717.3
45°	4738.1	3465.1	951.7	1030.6	1109.3	971.0	805.0	692.9	646.6	763.6	832.0
47.5°	5118.5	3448.4	915.9	1035.7	1117.2	971.0	789.1	709.6	677.0	884.4	964.1
50°	5535.9	3400.5	881.0	1025.3	1114.6	969.2	803.9	726.0	688.4	905.3	960.4
52.5°	6026.7	3360.2	844.2	1002.6	1096.1	959.6	821.4	719.1	652.7	823.2	861.6
55°	6586.4	3371.6	803.1	970.2	1067.2	941.4	815.3	691.1	615.0	725.2	748.8
57.5°	7302.1	3507.2	754.1	929.2	1028.0	910.6	793.6	678.1	603.7	658.0	672.0
60°	8100.7	3743.2	692.9	887.9	979.0	861.6	776.9	684.2	609.0	652.7	659.5
62.5°	8686.9	3880.7	640.5	827.5	912.5	807.3	756.0	691.9	623.0	670.9	669.3
65°	8846.1	3655.0	574.8	739.3	822.4	750.7	729.5	700.6	629.1	685.8	678.1
66°	8623.0	3411.9	545.9	698.2	776.9	722.6	716.5	699.8	626.4	687.6	674.4
67.5°	8081.6	2913.1	496.1	637.8	704.3	680.7	695.6	691.9	619.3	685.8	667.5
70°	6590.9	1987.6	424.3	531.1	586.2	599.1	655.3	664.0	596.5	655.3	615.0
72.5°	4605.1	1210.7	375.3	412.1	474.1	510.9	600.2	625.4	566.0	572.1	533.7
75°	2225.5	643.1	340.4	319.4	368.2	427.0	533.7	572.9	517.8	478.6	464.6
77.5°	693.7	392.8	288.7	257.2	288.7	344.6	446.1	502.2	461.1	400.8	395.5
80°	372.7	288.7	222.2	206.3	228.3	270.4	350.7	419.0	396.3	359.4	321.0
82.5°	245.8	187.3	164.5	160.0	174.0	206.3	260.6	347.3	347.3	308.1	224.1
85°	126.9	114.7	112.8	112.8	121.6	137.5	177.5	267.8	285.3	162.6	134.8
87.5°	63.0	65.7	61.2	63.8	68.3	67.3	84.8	134.8	161.0	98.8	82.1
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)