

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: P302843

Luminaire Tested: **GLNA-AF-04-LED-E1-T4W-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302843
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
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-T4W-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19197.3 lumens
Efficiency: N/A
Efficacy: 112.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

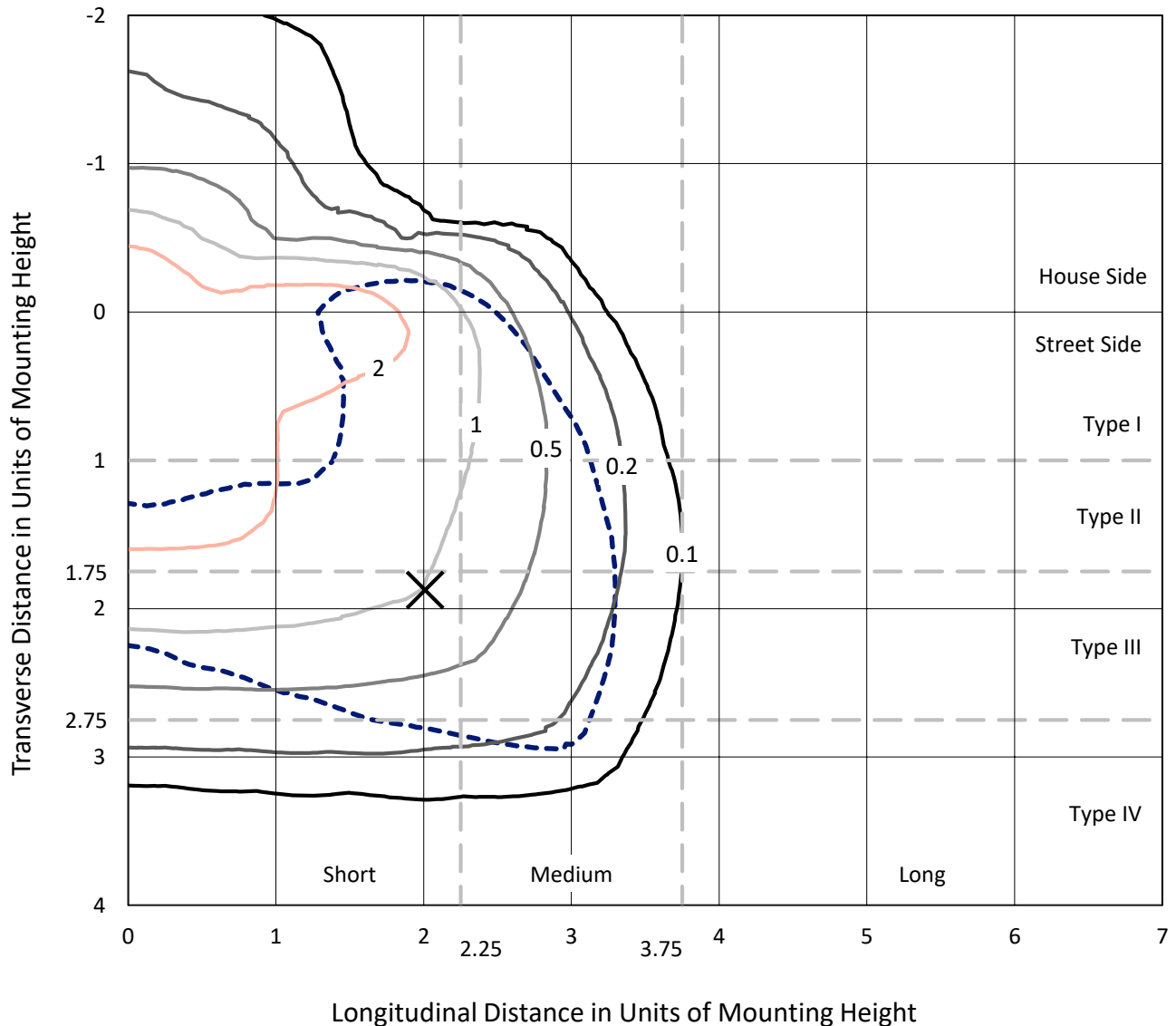
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

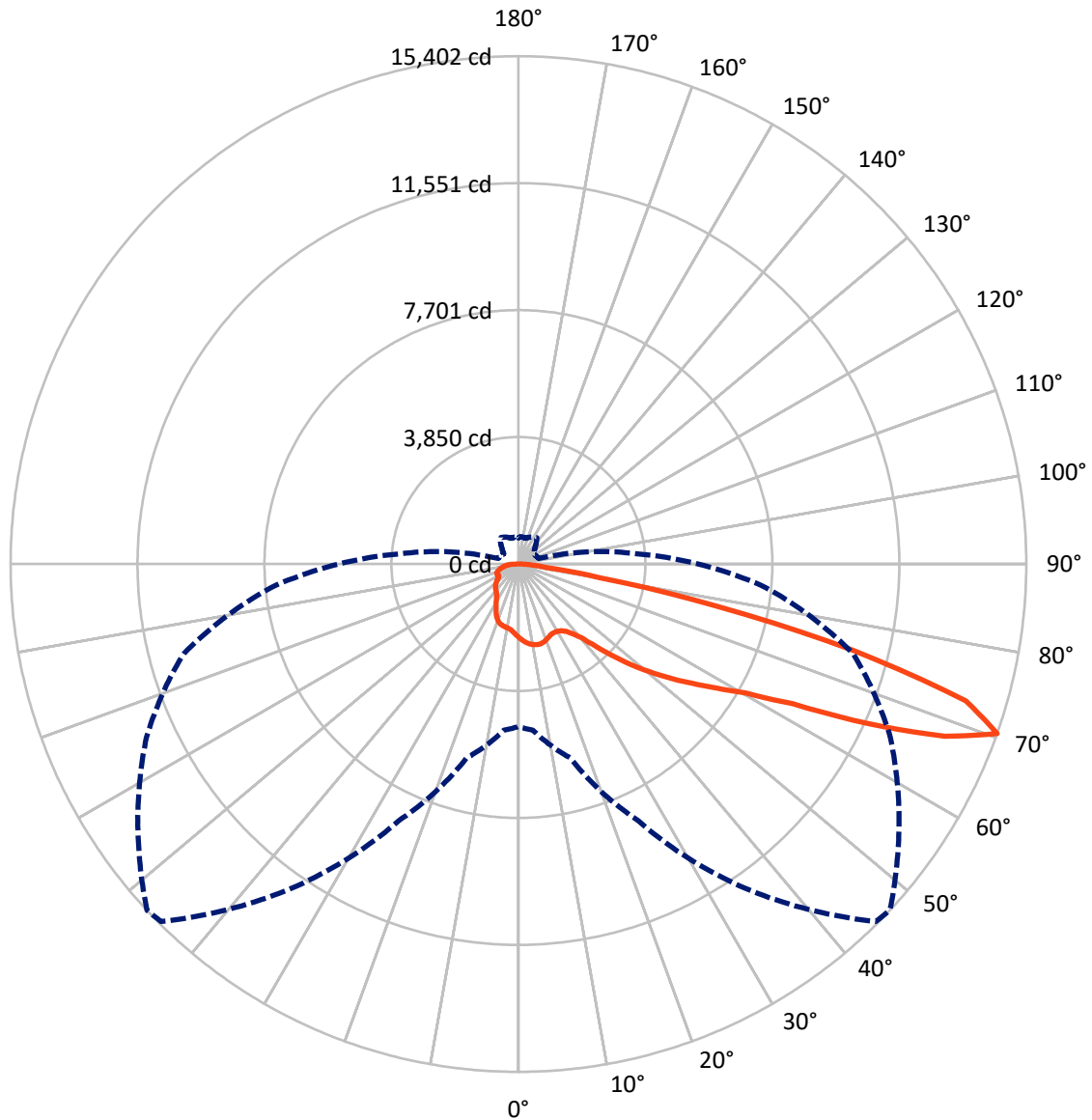
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P302843
CATALOG NUMBER: GLNA-AF-04-LED-E1-T4W-800

Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4004.9	0.0	4004.9
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	15192.4	0.0	15192.4
	% Fixture	79.1	0.0	79.1
Total	Lumens	19197.3	0.0	19197.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.4	1.1
10°-20°	626.2	3.3
20°-30°	924.7	4.8
30°-40°	1344.0	7.0
40°-50°	2418.7	12.6
50°-60°	4190.1	21.8
60°-70°	5980.5	31.2
70°-80°	3070.0	16.0
80°-90°	429.8	2.2
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°	19197.3	100.0
0°-180°	19197.3	100.0

Coefficient of Utilization



REPORT NUMBER: P302843

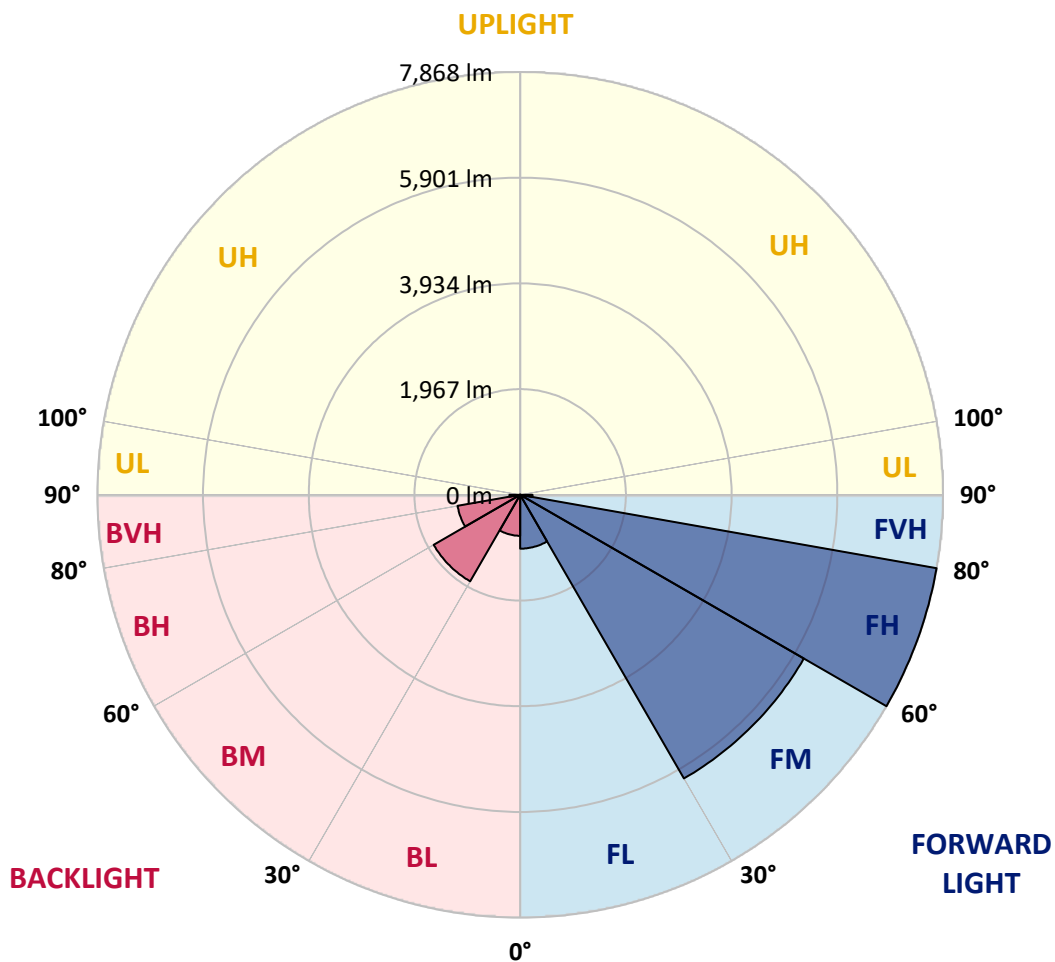
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1001.7	5.2			
FM	(30°-60°)	6093.8	31.7			
FH	(60°-80°)	7867.6	41.0			G4/12000
FVH	(80°-90°)	229.4	1.2			G3/500
BL	(0°-30°)	762.6	4.0	B2/1000		
BM	(30°-60°)	1859.0	9.7	B2/2500		
BH	(60°-80°)	1182.9	6.2	B3/2500		G3/2500
BVH	(80°-90°)	200.5	1.0			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





REPORT NUMBER: P302843

CATALOG NUMBER: GLNA-AF-04-LED-E1-T4W-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	2227.4	2227.4	2227.4	2227.4	2227.4	2227.4	2227.4	2227.4	2227.4	2227.4	2227.4
2.5°	2358.3	2353.7	2351.8	2348.1	2343.4	2319.9	2315.2	2298.5	2275.2	2250.7	2225.6
5°	2513.4	2512.5	2501.9	2483.3	2453.6	2402.1	2390.0	2349.0	2293.8	2240.5	2187.4
7.5°	2649.6	2641.2	2621.7	2584.1	2532.0	2461.9	2445.2	2388.1	2312.4	2239.5	2167.6
10°	2749.5	2744.8	2702.0	2650.5	2582.3	2504.7	2485.2	2421.6	2338.5	2246.0	2156.4
12.5°	2806.6	2797.2	2747.6	2686.2	2604.9	2529.2	2509.4	2445.2	2351.8	2246.0	2140.6
15°	2802.8	2796.3	2746.7	2679.4	2597.5	2531.1	2513.4	2448.9	2349.0	2236.7	2120.1
17.5°	2728.1	2730.9	2689.0	2622.6	2555.3	2504.7	2488.9	2429.4	2330.1	2218.1	2095.9
20°	2597.5	2610.5	2582.3	2523.7	2486.1	2451.7	2441.5	2390.9	2301.3	2191.1	2069.6
22.5°	2466.6	2478.7	2467.5	2417.9	2412.3	2391.8	2386.3	2350.0	2276.1	2174.4	2053.7
25°	2370.4	2381.6	2379.7	2336.6	2353.7	2352.8	2348.1	2330.1	2270.6	2174.4	2056.5
27.5°	2344.4	2348.1	2344.4	2305.0	2328.2	2347.2	2343.4	2340.3	2287.3	2201.4	2092.2
30°	2434.0	2428.4	2399.3	2319.9	2341.6	2367.6	2363.9	2365.8	2337.6	2272.4	2171.6
32.5°	2791.7	2766.2	2674.7	2451.7	2394.6	2408.6	2410.4	2441.5	2446.1	2381.6	2294.7
35°	3326.7	3298.8	3180.0	2804.7	2560.0	2511.6	2511.6	2558.1	2586.0	2538.6	2486.1
37.5°	3893.7	3862.7	3799.5	3294.2	2907.4	2689.9	2685.3	2717.8	2757.9	2769.3	2782.4
40°	4538.0	4505.4	4523.1	3843.2	3392.2	2998.9	2932.5	2909.2	3017.5	3089.4	3194.3
42.5°	5243.4	5228.2	5234.7	4454.9	3944.0	3461.4	3367.1	3246.4	3377.3	3505.1	3724.7
45°	5896.0	5909.0	5902.5	5109.7	4558.8	4025.3	3925.4	3691.8	3819.9	4039.2	4397.2
47.5°	6467.7	6413.4	6497.4	5825.0	5247.1	4656.8	4533.3	4220.7	4350.3	4621.1	5226.3
50°	7161.5	7154.1	7031.0	6779.7	6079.0	5290.8	5129.2	4766.9	4968.5	5345.1	6271.6
52.5°	7891.1	7755.5	7642.6	7522.0	6961.8	5941.0	5742.8	5311.3	5695.3	6168.6	7545.6
55°	8040.3	7979.8	8119.7	8322.6	7812.6	6616.2	6385.5	5994.0	6513.6	7110.4	9014.6
57.5°	8359.8	8358.9	8648.6	9009.9	8688.6	7332.5	7099.8	6818.8	7433.3	8188.9	10574.2
60°	8575.7	8636.2	9174.3	9875.7	9548.7	8160.0	7946.0	7770.4	8479.5	9394.6	12027.4
62.5°	8688.6	8770.8	9505.0	10226.8	10764.6	9537.6	9323.8	9070.7	9863.6	10717.2	12877.3
65°	8219.0	8380.3	9453.5	10530.5	11829.5	11770.6	11674.4	11229.9	11594.1	11762.2	12570.2
67.5°	6918.7	7084.0	8333.7	10247.3	12589.8	13924.5	13945.0	13185.6	12658.9	11851.8	10568.6
70°	4929.5	5059.1	6093.3	8591.5	12010.7	15331.8	15401.9	14086.7	12446.8	10510.6	7383.9
72.5°	2340.3	2419.8	3398.7	5591.7	9531.0	14047.6	14183.2	12936.3	10583.5	7781.6	4028.1
75°	860.1	884.3	1148.6	2378.8	5528.1	10359.5	10519.3	9273.3	7015.8	3874.2	1534.5
77.5°	515.5	531.3	644.6	1004.1	2174.4	5921.4	6157.5	5043.3	3066.2	1442.0	754.7
80°	360.4	371.6	462.2	624.7	1027.3	2256.6	2466.6	2058.4	1221.5	912.6	549.0
82.5°	243.8	249.4	325.1	422.2	682.7	805.9	869.4	915.4	823.9	679.0	348.3
85°	159.7	165.3	220.5	278.2	434.3	416.6	425.9	538.8	601.4	461.2	193.2
87.5°	91.5	95.2	132.8	148.6	213.1	176.5	178.4	283.8	384.9	311.1	117.6
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°	2227.4	2227.4	2227.4	2227.4	2227.4	2227.4	2227.4	2227.4	2227.4	2227.4	2227.4
2.5°	2219.1	2207.0	2180.0	2162.9	2147.1	2143.4	2136.9	2135.9	2135.0	2135.0	2132.2
5°	2169.4	2149.0	2107.1	2083.5	2064.0	2062.1	2061.2	2065.8	2067.7	2069.6	2066.8
7.5°	2137.8	2109.9	2057.5	2024.0	2000.7	1994.8	2004.4	2025.8	2039.8	2045.4	2042.6
10°	2118.3	2083.5	2023.0	1986.4	1966.9	1964.1	1976.2	2001.6	2030.5	2041.6	2040.7
12.5°	2095.9	2056.5	1992.0	1953.9	1942.7	1948.3	1964.1	1987.4	2017.4	2035.1	2036.1
15°	2073.3	2027.7	1961.3	1927.8	1923.1	1930.6	1945.5	1963.2	1986.4	2004.4	2006.3
17.5°	2046.3	1998.5	1932.5	1897.7	1894.0	1897.7	1898.6	1907.9	1923.1	1939.9	1944.5
20°	2017.4	1968.7	1899.6	1865.1	1848.4	1833.5	1816.4	1818.3	1823.0	1840.0	1843.7
22.5°	1996.7	1948.3	1874.4	1826.7	1782.0	1737.0	1703.5	1698.9	1700.7	1714.7	1719.4
25°	1998.5	1947.3	1867.9	1785.7	1687.7	1615.8	1570.8	1563.3	1562.4	1572.6	1579.5
27.5°	2035.1	1983.6	1892.1	1743.5	1585.0	1478.3	1430.9	1425.3	1417.9	1420.6	1428.1
30°	2116.4	2068.6	1951.1	1700.7	1473.7	1344.0	1294.4	1288.8	1278.6	1273.9	1279.5
32.5°	2248.8	2209.8	2037.0	1659.5	1362.6	1229.0	1178.7	1166.6	1160.1	1154.5	1159.2
35°	2469.4	2452.6	2151.8	1614.8	1264.6	1140.2	1094.6	1076.0	1066.7	1077.0	1084.4
37.5°	2814.9	2824.2	2302.2	1544.7	1188.9	1081.6	1043.2	1021.7	1007.8	1016.2	1024.5
40°	3304.4	3310.9	2468.4	1445.8	1123.5	1046.9	1005.9	986.4	966.5	951.6	950.7
42.5°	3946.8	3880.7	2631.9	1338.4	1047.8	1025.5	979.9	955.4	925.6	884.3	876.0
45°	4708.9	4476.6	2756.0	1215.0	962.8	999.4	950.7	917.2	870.4	825.7	821.1
47.5°	5587.0	5116.2	2816.8	1087.2	883.4	961.0	915.4	862.0	803.1	780.7	777.9
50°	6659.0	5875.5	2845.6	962.8	814.5	910.7	863.9	801.2	751.9	747.2	744.4
52.5°	7879.9	6789.0	2855.3	861.1	757.5	845.3	822.0	761.2	721.8	725.8	725.8
55°	9157.6	7732.3	2728.1	787.2	705.0	777.9	793.8	745.4	712.5	727.7	733.3
57.5°	10330.4	8568.2	2328.2	730.5	655.7	726.8	783.5	760.3	737.9	798.4	802.1
60°	11230.9	9062.0	1738.9	679.0	619.1	708.8	810.8	817.3	822.9	967.5	987.3
62.5°	11419.4	8898.0	1195.5	639.0	602.4	724.0	860.1	861.1	854.6	955.4	967.5
65°	10553.7	7858.2	869.4	616.3	588.4	751.0	902.3	882.5	839.7	916.3	893.6
67.5°	8381.2	5920.5	724.0	599.6	567.9	749.1	947.0	902.3	831.3	897.7	861.1
70°	5440.3	3579.8	644.6	585.6	543.4	713.4	973.0	900.5	806.8	835.0	791.9
72.5°	2654.3	1600.9	591.2	565.2	518.3	664.1	972.1	883.4	781.7	779.8	756.5
75°	1038.5	733.3	542.5	534.1	475.5	608.0	946.1	859.2	751.9	721.8	713.4
77.5°	608.0	523.0	481.1	488.5	424.0	551.8	907.9	817.3	710.6	675.3	666.0
80°	442.6	391.5	410.1	422.2	362.3	496.0	856.4	765.8	665.0	682.7	669.7
82.5°	283.8	252.2	332.5	344.6	301.8	438.9	800.3	711.6	600.5	545.3	532.3
85°	144.9	159.7	247.5	262.4	232.6	360.4	732.3	639.9	527.6	453.8	461.2
87.5°	81.3	109.2	157.9	176.5	164.4	277.3	594.0	527.6	430.5	350.2	308.3
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)