

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: P302816

Luminaire Tested: **GLNA-AF-10-LED-E1-T4W-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302816
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-10-LED-E1-T4W-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 50659.1 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G5

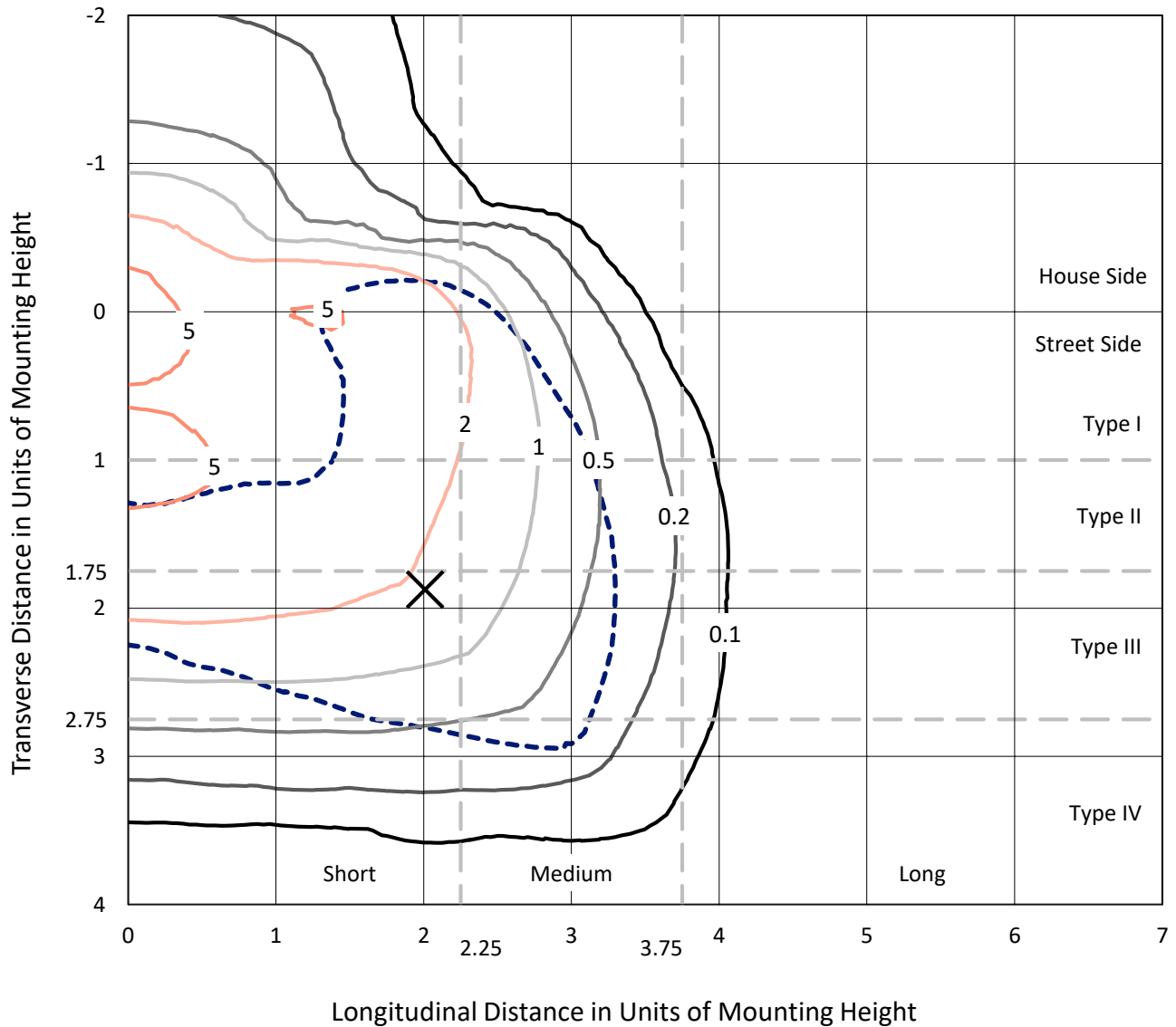
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

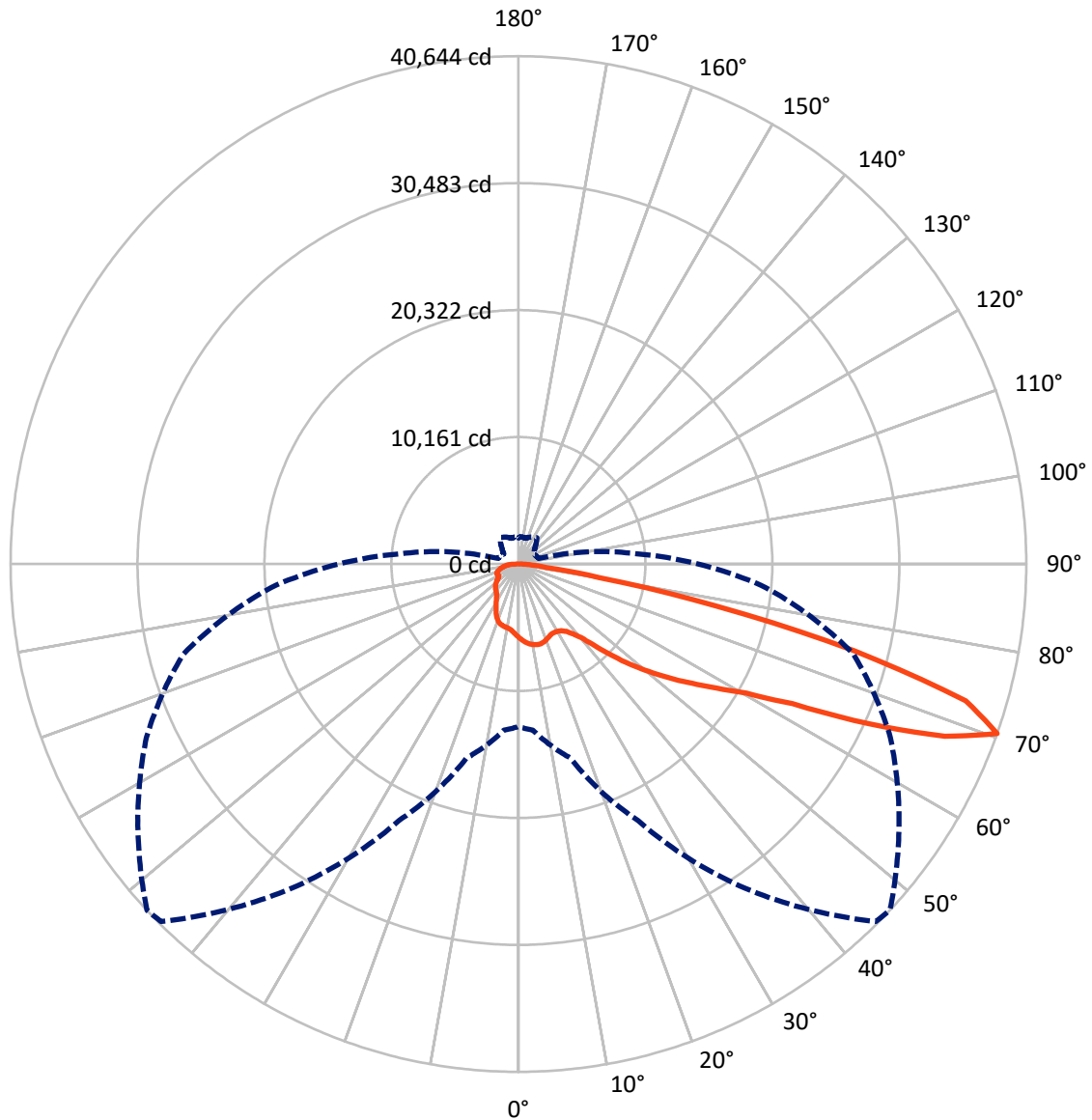
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.5 fc
 Type IV - Short - Semi-Cutoff

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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	10568.5	0.0	10568.5
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	40090.6	0.0	40090.6
	% Fixture	79.1	0.0	79.1
Total	Lumens	50659.1	0.0	50659.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	563.2	1.1
10°-20°	1652.3	3.3
20°-30°	2440.0	4.8
30°-40°	3546.6	7.0
40°-50°	6382.5	12.6
50°-60°	11057.1	21.8
60°-70°	15781.7	31.2
70°-80°	8101.4	16.0
80°-90°	1134.2	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°	50659.1	100.0
0°-180°	50659.1	100.0



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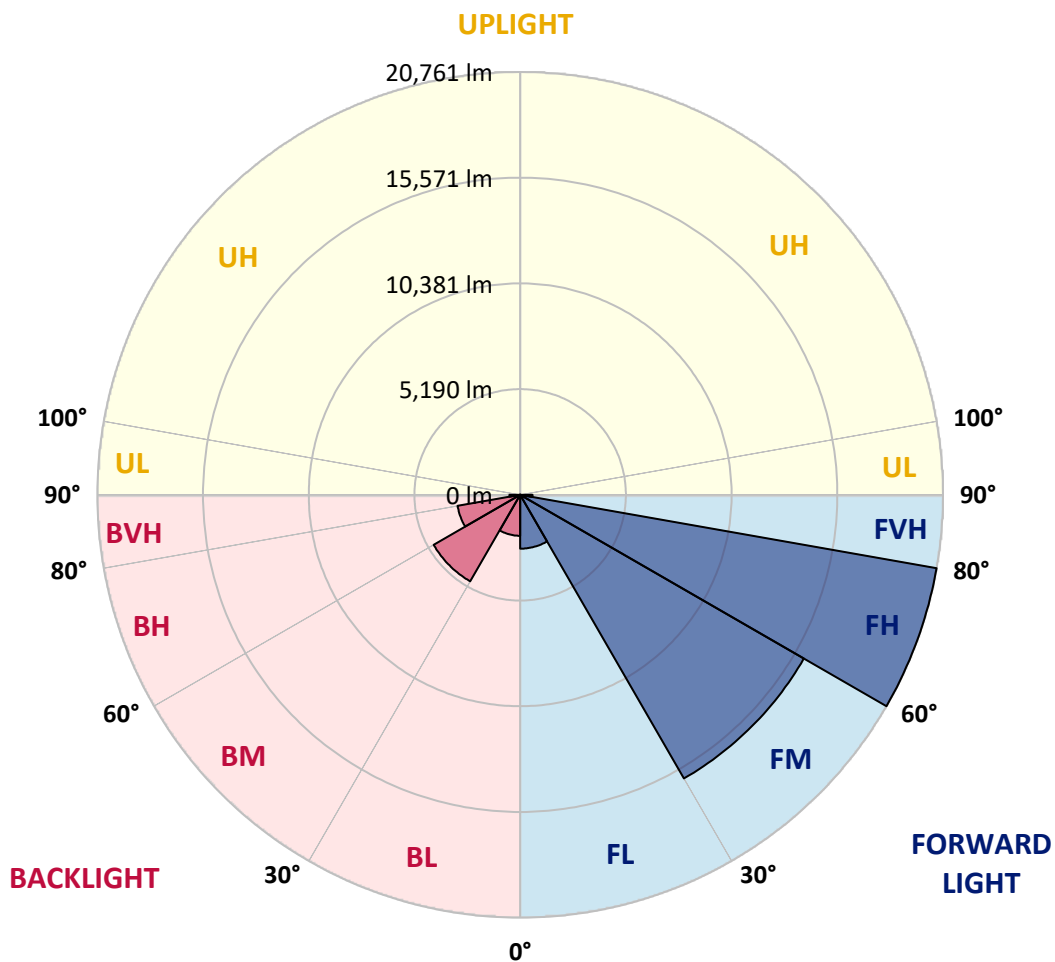
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2643.3	5.2			
FM	(30°-60°)	16080.6	31.7			
FH	(60°-80°)	20761.5	41.0			G5
FVH	(80°-90°)	605.2	1.2			G4/750
BL	(0°-30°)	2012.3	4.0	B3/2500		
BM	(30°-60°)	4905.6	9.7	B3/5000		
BH	(60°-80°)	3121.6	6.2	B4/5000		G4/5000
BVH	(80°-90°)	529.0	1.0			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	5877.9	5877.9	5877.9	5877.9	5877.9	5877.9	5877.9	5877.9	5877.9	5877.9	5877.9
2.5°	6223.3	6211.0	6206.1	6196.3	6184.0	6121.8	6109.5	6065.3	6004.0	5939.3	5873.0
5°	6632.6	6630.1	6602.3	6553.2	6474.6	6338.7	6306.8	6198.8	6053.1	5912.3	5772.3
7.5°	6991.9	6969.8	6918.3	6819.2	6681.7	6496.7	6452.5	6301.9	6102.2	5909.8	5719.9
10°	7255.5	7243.2	7130.3	6994.4	6814.3	6609.7	6558.1	6390.3	6170.9	5927.0	5690.5
12.5°	7406.1	7381.5	7250.6	7088.5	6874.1	6674.3	6621.9	6452.5	6206.1	5927.0	5648.7
15°	7396.3	7379.1	7248.1	7070.5	6854.4	6679.2	6632.6	6462.3	6198.8	5902.5	5594.7
17.5°	7199.0	7206.4	7095.9	6920.7	6743.1	6609.7	6567.9	6410.8	6148.8	5853.3	5530.8
20°	6854.4	6888.8	6814.3	6659.6	6560.6	6469.7	6442.7	6309.3	6072.7	5782.1	5461.3
22.5°	6509.0	6540.9	6511.4	6380.5	6365.7	6311.7	6297.0	6201.2	6006.4	5737.9	5419.5
25°	6255.2	6284.7	6279.8	6166.0	6211.0	6208.6	6196.3	6148.8	5991.7	5737.9	5426.9
27.5°	6186.5	6196.3	6186.5	6082.5	6143.9	6193.9	6184.0	6175.8	6035.9	5809.1	5521.0
30°	6423.0	6408.3	6331.4	6121.8	6179.1	6247.9	6238.1	6243.0	6168.5	5996.6	5730.6
32.5°	7366.8	7299.7	7058.2	6469.7	6319.1	6355.9	6360.8	6442.7	6455.0	6284.7	6055.5
35°	8778.8	8705.1	8391.6	7401.2	6755.4	6627.7	6627.7	6750.5	6824.1	6698.9	6560.6
37.5°	10275.1	10193.2	10026.2	8692.8	7672.1	7098.3	7086.1	7172.0	7277.6	7307.9	7342.3
40°	11975.2	11889.2	11935.9	10141.6	8951.5	7913.6	7738.4	7677.0	7962.7	8152.6	8429.3
42.5°	13836.5	13796.4	13813.6	11755.8	10407.7	9134.0	8885.2	8566.8	8912.2	9249.4	9829.0
45°	15558.7	15593.1	15575.9	13483.7	12030.0	10622.1	10358.6	9742.2	10080.3	10659.0	11603.5
47.5°	17067.3	16924.0	17145.8	15371.3	13846.3	12288.7	11962.9	11137.8	11480.0	12194.5	13791.5
50°	18898.3	18878.7	18553.7	17890.7	16041.6	13961.7	13535.3	12579.2	13111.3	14105.0	16550.0
52.5°	20823.5	20465.8	20167.9	19849.5	18371.2	15677.4	15154.4	14015.8	15029.1	16278.2	19911.7
55°	21217.2	21057.6	21426.8	21962.1	20616.4	17459.3	16850.4	15817.4	17188.4	18763.3	23788.3
57.5°	22060.3	22057.9	22822.4	23776.0	22928.0	19349.3	18735.4	17993.9	19615.4	21609.3	27903.9
60°	22630.0	22789.6	24209.8	26060.5	25197.8	21533.2	20968.4	20505.1	22376.3	24791.0	31738.7
62.5°	22928.0	23144.9	25082.4	26987.1	28406.4	25168.3	24604.3	23936.4	26028.6	28281.2	33981.5
65°	21688.7	22114.4	24946.5	27788.4	31216.5	31060.9	30807.2	29634.2	30595.2	31038.8	33171.1
67.5°	18257.4	18693.7	21991.6	27041.1	33222.7	36744.8	36798.9	34795.1	33405.2	31275.4	27889.1
70°	13008.2	13350.3	16079.3	22671.8	31694.5	40458.5	40643.5	37172.9	32845.3	27736.1	19485.2
72.5°	6175.8	6385.4	8968.7	14755.7	25151.1	37069.8	37427.5	34137.0	27928.4	20534.6	10629.5
75°	2269.8	2333.6	3031.0	6277.3	14587.9	27337.4	27759.0	24470.9	18513.6	10223.5	4049.3
77.5°	1360.4	1402.2	1700.9	2649.6	5737.9	15625.8	16248.7	13308.6	8091.2	3805.4	1991.5
80°	951.1	980.6	1219.6	1648.5	2711.0	5954.8	6509.0	5431.8	3223.4	2408.1	1448.8
82.5°	643.4	658.1	857.8	1114.0	1801.6	2126.6	2294.4	2415.5	2174.0	1791.8	919.2
85°	421.5	436.3	582.0	734.2	1145.9	1099.3	1123.8	1421.8	1587.1	1217.2	509.9
87.5°	241.5	251.3	350.3	392.1	562.3	465.7	470.7	749.0	1015.8	821.0	310.2
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°	5877.9	5877.9	5877.9	5877.9	5877.9	5877.9	5877.9	5877.9	5877.9	5877.9	5877.9
2.5°	5855.8	5823.9	5752.7	5707.6	5665.9	5656.1	5638.9	5636.4	5634.0	5634.0	5626.6
5°	5724.8	5670.8	5560.3	5498.1	5446.5	5441.6	5439.2	5451.4	5456.4	5461.3	5453.9
7.5°	5641.3	5567.7	5429.3	5340.9	5279.5	5264.0	5289.4	5345.9	5382.7	5397.4	5390.1
10°	5589.8	5498.1	5338.5	5241.9	5190.3	5183.0	5214.9	5282.0	5358.1	5387.6	5385.1
12.5°	5530.8	5426.9	5256.6	5156.0	5126.5	5141.2	5183.0	5244.4	5323.8	5370.4	5372.9
15°	5471.1	5350.8	5175.6	5087.2	5074.9	5094.6	5133.9	5180.5	5241.9	5289.4	5294.3
17.5°	5399.9	5273.8	5099.5	5007.8	4998.0	5007.8	5010.3	5034.8	5074.9	5119.1	5131.4
20°	5323.8	5195.2	5012.7	4921.8	4877.6	4838.4	4793.3	4798.3	4810.5	4855.5	4865.4
22.5°	5268.9	5141.2	4946.4	4820.4	4702.5	4583.8	4495.4	4483.1	4488.0	4524.9	4537.1
25°	5273.8	5138.8	4929.2	4712.3	4453.6	4263.7	4145.1	4125.4	4123.0	4150.0	4168.0
27.5°	5370.4	5234.5	4993.1	4601.0	4182.7	3901.1	3775.9	3761.2	3741.5	3748.9	3768.5
30°	5584.9	5458.8	5148.6	4488.0	3888.9	3546.7	3415.7	3401.0	3374.0	3361.7	3376.5
32.5°	5934.4	5831.2	5375.3	4379.2	3595.8	3243.0	3110.4	3078.5	3061.3	3046.6	3058.9
35°	6516.4	6472.2	5678.2	4261.3	3337.2	3008.9	2888.6	2839.5	2814.9	2842.0	2861.6
37.5°	7428.2	7452.8	6075.2	4076.3	3137.4	2854.2	2752.7	2696.3	2659.4	2681.5	2703.6
40°	8719.9	8737.0	6513.9	3815.2	2964.7	2762.6	2654.5	2602.9	2550.6	2511.3	2508.8
42.5°	10415.0	10240.7	6945.3	3532.0	2765.0	2706.1	2585.8	2521.1	2442.5	2333.6	2311.5
45°	12426.2	11813.1	7272.7	3206.2	2540.7	2637.3	2508.8	2420.4	2296.8	2178.9	2166.7
47.5°	14743.4	13500.9	7433.1	2869.0	2331.2	2535.8	2415.5	2274.7	2119.2	2060.3	2052.9
50°	17572.3	15504.7	7509.2	2540.7	2149.5	2403.2	2279.6	2114.3	1984.1	1971.9	1964.5
52.5°	20794.1	17915.3	7534.6	2272.3	1998.9	2230.5	2169.1	2008.7	1904.7	1915.4	1915.4
55°	24165.6	20404.4	7199.0	2077.4	1860.5	2052.9	2094.6	1966.9	1880.2	1920.3	1935.0
57.5°	27260.5	22610.4	6143.9	1927.6	1730.4	1917.8	2067.6	2006.2	1947.3	2106.9	2116.7
60°	29636.7	23913.5	4588.7	1791.8	1633.8	1870.4	2139.6	2156.8	2171.6	2553.0	2605.4
62.5°	30134.4	23480.5	3154.6	1686.2	1589.6	1910.5	2269.8	2272.3	2255.1	2521.1	2553.0
65°	27849.8	20736.8	2294.4	1626.4	1552.8	1981.7	2381.1	2328.7	2215.8	2418.0	2358.2
67.5°	22116.8	15623.4	1910.5	1582.2	1498.7	1976.8	2499.0	2381.1	2193.7	2368.8	2272.3
70°	14356.3	9446.7	1700.9	1545.4	1434.1	1882.6	2567.7	2376.2	2129.0	2203.5	2089.7
72.5°	7004.2	4224.5	1560.1	1491.4	1367.8	1752.5	2565.3	2331.2	2062.7	2057.8	1996.4
75°	2740.5	1935.0	1431.6	1409.5	1254.8	1604.3	2496.5	2267.3	1984.1	1904.7	1882.6
77.5°	1604.3	1380.0	1269.5	1289.2	1118.9	1456.2	2395.9	2156.8	1875.3	1782.0	1757.4
80°	1168.0	1033.0	1082.1	1114.0	956.0	1308.8	2260.0	2021.0	1754.9	1801.6	1767.2
82.5°	749.0	665.5	877.5	909.4	796.4	1158.2	2111.8	1877.7	1584.7	1439.0	1404.6
85°	382.3	421.5	653.2	692.5	613.9	951.1	1932.6	1688.6	1392.3	1197.5	1217.2
87.5°	214.5	288.1	416.6	465.7	433.8	731.8	1567.5	1392.3	1136.1	924.1	813.6
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)