

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: P302923

Luminaire Tested: **GLNA-AF-07-LED-E1-T4W-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302923
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-07-LED-E1-T4W-7060-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27448.7 lumens
Efficiency: N/A
Efficacy: 121.5 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

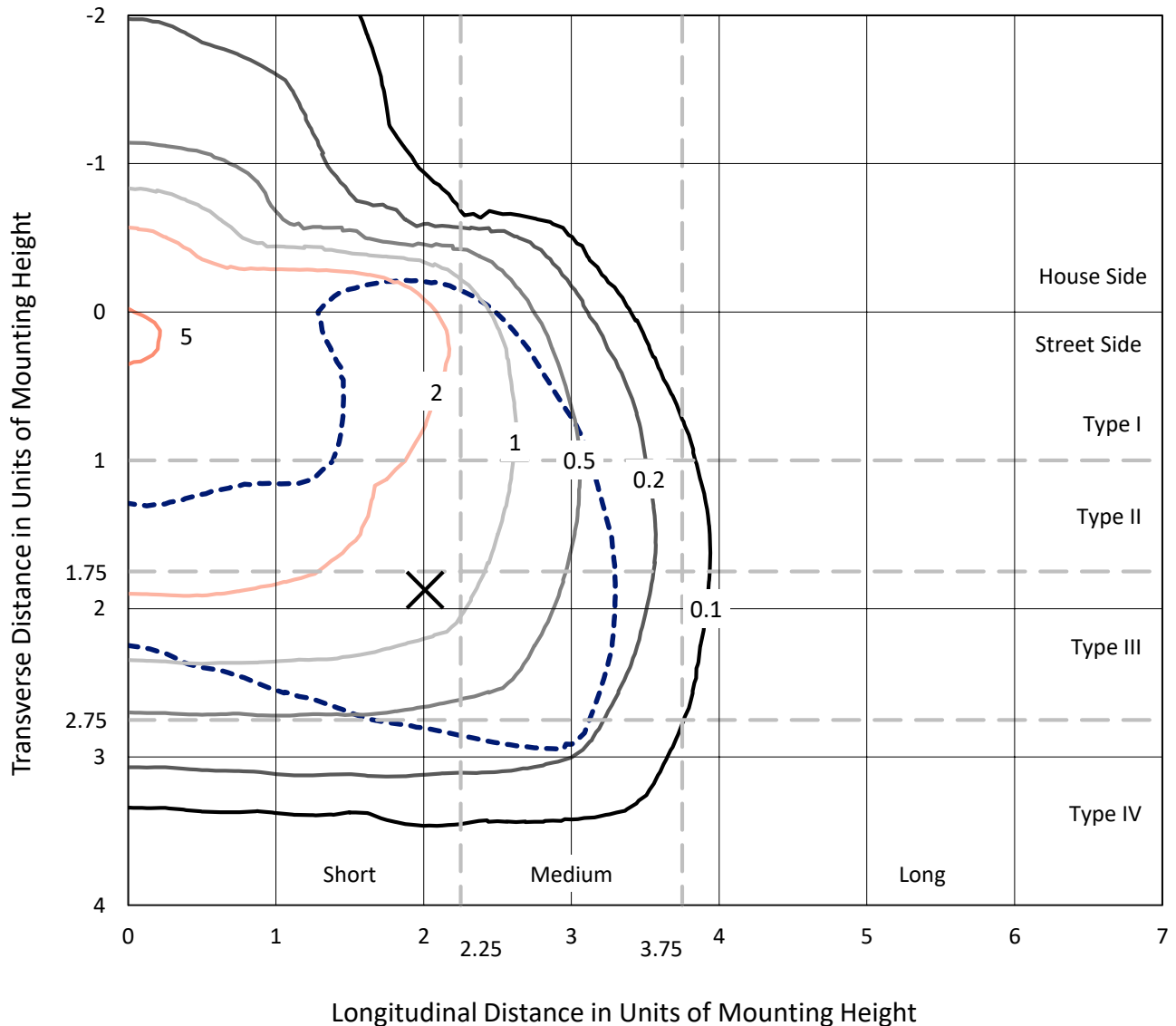
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

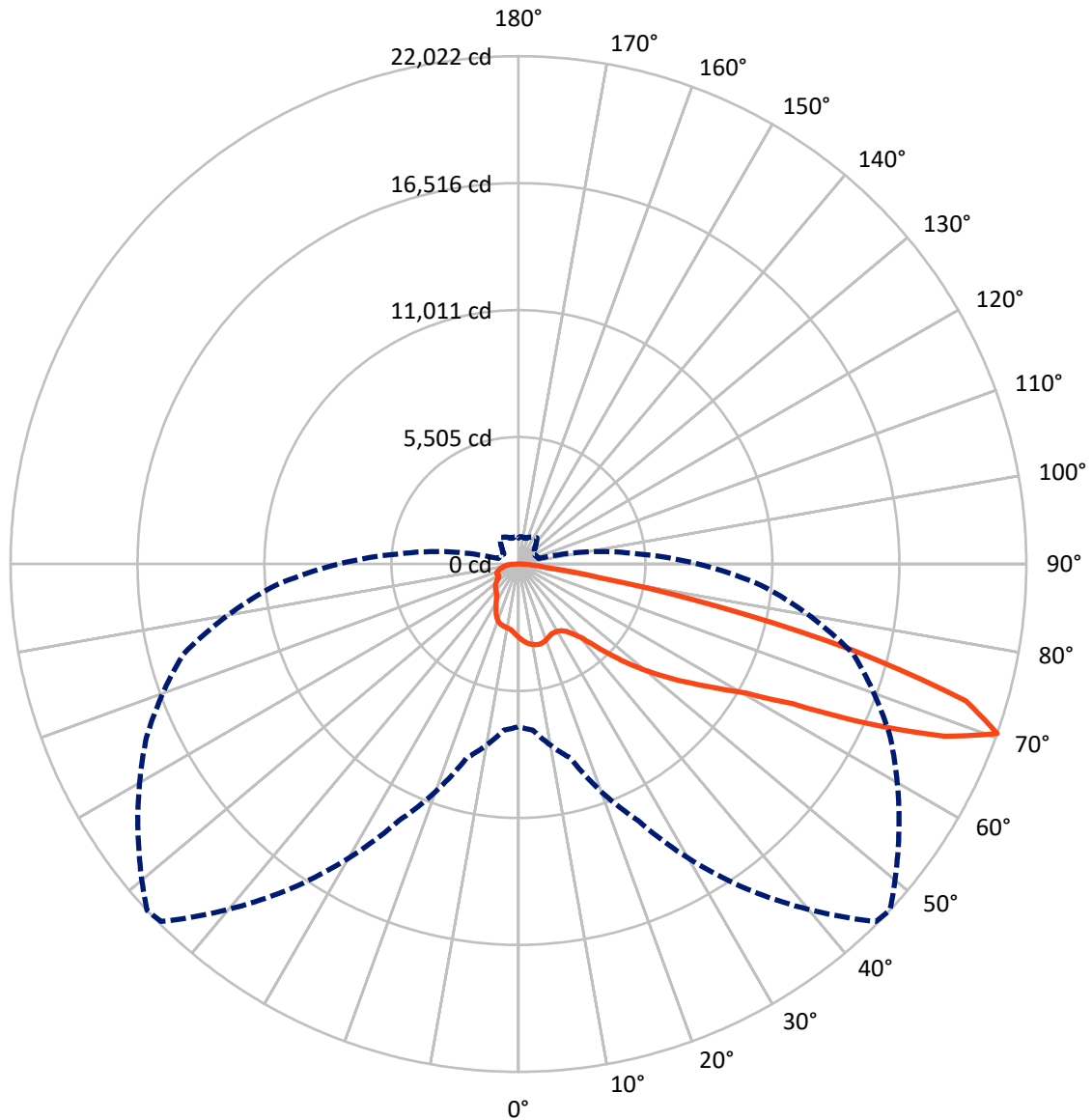
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.9 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	5726.3	0.0	5726.3
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	21722.3	0.0	21722.3
	% Fixture	79.1	0.0	79.1
Total	Lumens	27448.7	0.0	27448.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.2	1.1
10°-20°	895.3	3.3
20°-30°	1322.1	4.8
30°-40°	1921.6	7.0
40°-50°	3458.2	12.6
50°-60°	5991.1	21.8
60°-70°	8551.0	31.2
70°-80°	4389.6	16.0
80°-90°	614.6	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°	27448.7	100.0
0°-180°	27448.7	100.0

Coefficient of Utilization



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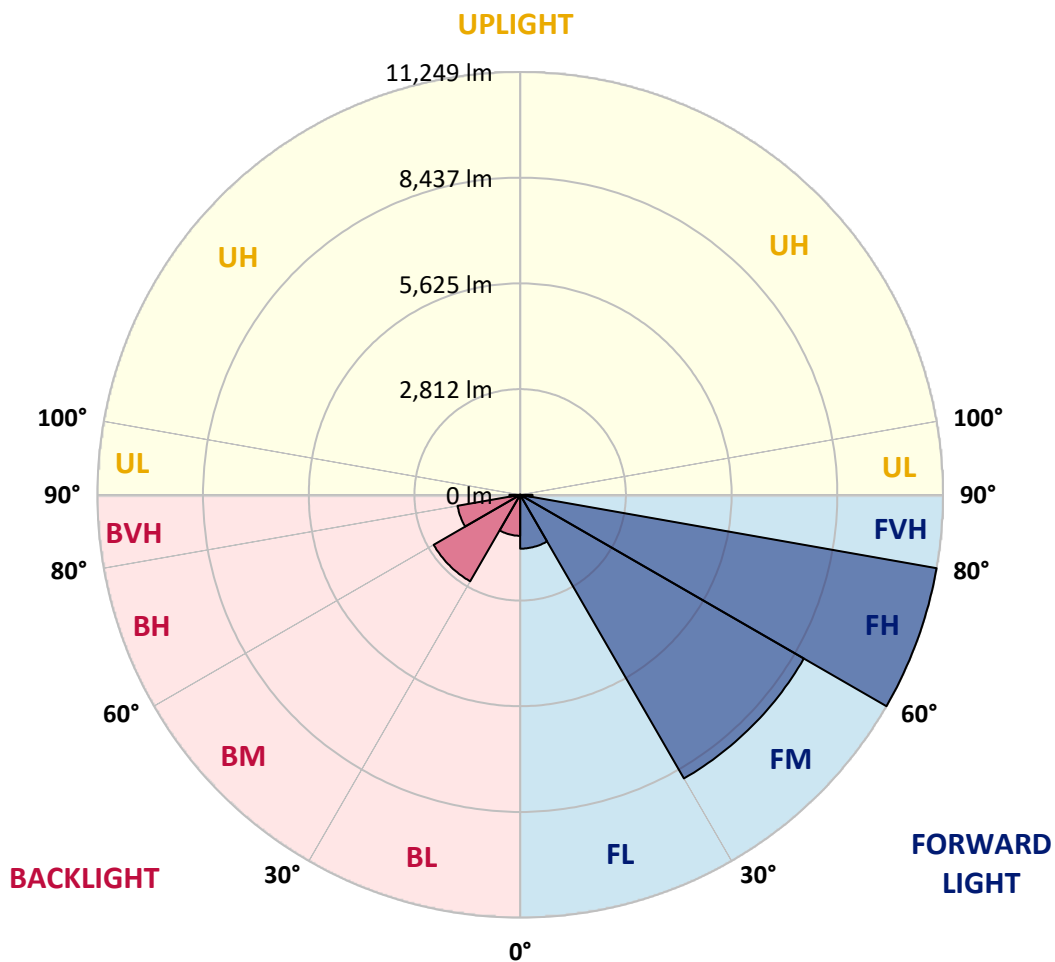
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1432.2	5.2			
FM	(30°-60°)	8713.0	31.7			
FH	(60°-80°)	11249.2	41.0			G4/12000
FVH	(80°-90°)	327.9	1.2			G3/500
BL	(0°-30°)	1090.3	4.0	B3/2500		
BM	(30°-60°)	2658.0	9.7	B3/5000		
BH	(60°-80°)	1691.4	6.2	B3/2500		G3/2500
BVH	(80°-90°)	286.6	1.0			G3/500
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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	3184.8	3184.8	3184.8	3184.8	3184.8	3184.8	3184.8	3184.8	3184.8	3184.8	3184.8
2.5°	3372.0	3365.3	3362.7	3357.4	3350.7	3317.0	3310.3	3286.4	3253.1	3218.1	3182.2
5°	3593.7	3592.4	3577.3	3550.7	3508.1	3434.5	3417.2	3358.7	3279.7	3203.5	3127.6
7.5°	3788.4	3776.5	3748.5	3694.9	3620.4	3520.1	3496.2	3414.6	3306.3	3202.1	3099.2
10°	3931.3	3924.6	3863.4	3789.8	3692.2	3581.3	3553.4	3462.5	3343.6	3211.4	3083.3
12.5°	4012.9	3999.6	3928.6	3840.8	3724.6	3616.4	3588.0	3496.2	3362.7	3211.4	3060.6
15°	4007.5	3998.2	3927.3	3831.0	3713.9	3619.0	3593.7	3501.5	3358.7	3198.1	3031.4
17.5°	3900.6	3904.6	3844.8	3749.9	3653.6	3581.3	3558.7	3473.6	3331.6	3171.5	2996.8
20°	3713.9	3732.6	3692.2	3608.4	3554.7	3505.5	3490.8	3418.6	3290.4	3132.9	2959.1
22.5°	3526.8	3544.1	3528.1	3457.1	3449.2	3419.9	3411.9	3360.0	3254.5	3109.0	2936.5
25°	3389.3	3405.3	3402.6	3340.9	3365.3	3364.0	3357.4	3331.6	3246.5	3109.0	2940.5
27.5°	3352.0	3357.4	3352.0	3295.7	3329.0	3356.0	3350.7	3346.3	3270.4	3147.6	2991.5
30°	3480.2	3472.2	3430.5	3317.0	3348.0	3385.3	3380.0	3382.6	3342.3	3249.1	3105.0
32.5°	3991.6	3955.2	3824.4	3505.5	3423.9	3443.8	3446.5	3490.8	3497.5	3405.3	3281.1
35°	4756.6	4716.7	4546.8	4010.2	3660.3	3591.1	3591.1	3657.6	3697.5	3629.7	3554.7
37.5°	5567.3	5523.0	5432.5	4710.0	4157.0	3846.1	3839.4	3886.0	3943.2	3959.6	3978.3
40°	6488.5	6441.9	6467.2	5495.1	4850.2	4287.8	4192.9	4159.7	4314.4	4417.3	4567.2
42.5°	7497.1	7475.3	7484.6	6369.7	5639.2	4949.1	4814.3	4641.7	4828.9	5011.6	5325.6
45°	8430.2	8448.8	8439.5	7305.9	6518.2	5755.4	5612.6	5278.6	5461.8	5775.4	6287.2
47.5°	9247.6	9170.0	9290.2	8328.6	7502.4	6658.4	6481.9	6034.8	6220.2	6607.4	7472.7
50°	10239.7	10229.1	10053.0	9693.7	8691.9	7564.9	7333.8	6815.8	7104.1	7642.5	8967.3
52.5°	11282.8	11089.0	10927.6	10755.1	9954.1	8494.5	8211.1	7594.2	8143.2	8820.0	10788.8
55°	11496.2	11409.7	11609.7	11899.7	11170.6	9460.0	9130.0	8570.3	9313.2	10166.5	12889.2
57.5°	11953.0	11951.6	12365.9	12882.6	12423.1	10484.1	10151.4	9749.6	10628.2	11708.6	15119.2
60°	12261.7	12348.1	13117.6	14120.4	13652.9	11667.4	11361.3	11110.3	12124.2	13432.5	17197.0
62.5°	12423.1	12540.6	13590.4	14622.4	15391.5	13637.0	13331.4	12969.5	14103.1	15323.6	18412.2
65°	11751.6	11982.2	13516.8	15056.6	16914.0	16829.8	16692.3	16056.7	16577.4	16817.8	17973.1
67.5°	9892.4	10128.8	11915.7	14651.7	18001.1	19909.5	19938.8	18853.1	18100.0	16946.0	15111.2
70°	7048.2	7233.6	8712.3	12284.3	17173.1	21921.7	22021.9	20141.4	17796.6	15028.3	10557.7
72.5°	3346.3	3459.8	4859.5	7995.1	13627.7	20085.6	20279.4	18496.5	15132.5	11126.3	5759.4
75°	1229.8	1264.4	1642.3	3401.3	7904.2	14812.3	15040.7	13259.1	10031.3	5539.4	2194.0
77.5°	737.1	759.7	921.6	1435.6	3109.0	8466.6	8804.1	7211.0	4384.1	2061.9	1079.1
80°	515.4	531.3	660.8	893.2	1468.9	3226.5	3526.8	2943.1	1746.5	1304.8	785.0
82.5°	348.6	356.6	464.8	603.6	976.2	1152.2	1243.2	1308.8	1178.0	970.8	498.1
85°	228.4	236.4	315.3	397.8	620.9	595.6	608.9	770.4	860.0	659.5	276.3
87.5°	130.8	136.2	189.8	212.4	304.7	252.4	255.0	405.8	550.4	444.8	168.1
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°	3184.8	3184.8	3184.8	3184.8	3184.8	3184.8	3184.8	3184.8	3184.8	3184.8	3184.8
2.5°	3172.9	3155.6	3117.0	3092.6	3070.0	3064.6	3055.3	3054.0	3052.7	3052.7	3048.7
5°	3101.9	3072.6	3012.7	2979.0	2951.1	2948.4	2947.1	2953.8	2956.4	2959.1	2955.1
7.5°	3056.7	3016.7	2941.8	2893.9	2860.6	2852.2	2865.9	2896.5	2916.5	2924.5	2920.5
10°	3028.7	2979.0	2892.6	2840.2	2812.3	2808.3	2825.6	2862.0	2903.2	2919.2	2917.8
12.5°	2996.8	2940.5	2848.2	2793.7	2777.7	2785.7	2808.3	2841.6	2884.6	2909.9	2911.2
15°	2964.4	2899.2	2804.3	2756.4	2749.7	2760.4	2781.7	2807.0	2840.2	2865.9	2868.6
17.5°	2925.8	2857.5	2763.1	2713.4	2708.1	2713.4	2714.7	2728.0	2749.7	2773.7	2780.3
20°	2884.6	2814.9	2716.0	2666.8	2642.9	2621.6	2597.2	2599.8	2606.5	2630.9	2636.2
22.5°	2854.9	2785.7	2680.1	2611.8	2548.0	2483.6	2435.7	2429.1	2431.8	2451.7	2458.4
25°	2857.5	2784.3	2670.8	2553.3	2413.1	2310.2	2245.9	2235.3	2233.9	2248.6	2258.3
27.5°	2909.9	2836.2	2705.4	2493.0	2266.3	2113.8	2045.9	2037.9	2027.3	2031.3	2041.9
30°	3026.1	2957.8	2789.7	2431.8	2107.1	1921.7	1850.8	1842.8	1828.1	1821.5	1829.5
32.5°	3215.4	3159.5	2912.5	2372.8	1948.3	1757.2	1685.3	1668.0	1658.7	1650.7	1657.4
35°	3530.8	3506.8	3076.6	2308.9	1808.2	1630.3	1565.1	1538.5	1525.2	1539.9	1550.5
37.5°	4024.8	4038.1	3291.7	2208.7	1700.0	1546.5	1491.5	1460.9	1441.0	1452.9	1464.9
40°	4724.7	4734.0	3529.4	2067.2	1606.4	1496.8	1438.3	1410.4	1382.0	1360.7	1359.4
42.5°	5643.2	5548.7	3763.2	1913.7	1498.2	1466.2	1401.0	1366.0	1323.4	1264.4	1252.5
45°	6732.9	6400.7	3940.6	1737.2	1376.6	1429.0	1359.4	1311.5	1244.5	1180.6	1174.0
47.5°	7988.5	7315.2	4027.5	1554.5	1263.1	1374.0	1308.8	1232.5	1148.2	1116.3	1112.3
50°	9521.2	8400.9	4068.7	1376.6	1164.7	1302.1	1235.2	1145.6	1075.1	1068.4	1064.4
52.5°	11266.9	9707.0	4082.5	1231.2	1083.0	1208.6	1175.3	1088.4	1032.0	1037.8	1037.8
55°	13093.7	11055.8	3900.6	1125.6	1008.1	1112.3	1134.9	1065.7	1018.7	1040.5	1048.5
57.5°	14770.6	12251.0	3329.0	1044.5	937.6	1039.1	1120.3	1087.0	1055.1	1141.6	1146.9
60°	16058.1	12957.1	2486.3	970.8	885.2	1013.4	1159.3	1168.6	1176.6	1383.3	1411.7
62.5°	16327.7	12722.5	1709.3	913.6	861.3	1035.1	1229.8	1231.2	1221.9	1366.0	1383.3
65°	15089.9	11235.8	1243.2	881.2	841.3	1073.7	1290.2	1261.8	1200.6	1310.1	1277.7
67.5°	11983.6	8465.2	1035.1	857.3	812.1	1071.1	1354.0	1290.2	1188.6	1283.5	1231.2
70°	7778.7	5118.5	921.6	837.3	777.0	1020.1	1391.3	1287.5	1153.6	1193.9	1132.3
72.5°	3795.1	2288.9	845.3	808.1	741.1	949.5	1390.0	1263.1	1117.6	1115.0	1081.7
75°	1484.9	1048.5	775.7	763.7	679.9	869.3	1352.7	1228.5	1075.1	1032.0	1020.1
77.5°	869.3	747.8	687.9	698.5	606.3	789.0	1298.1	1168.6	1016.1	965.5	952.2
80°	632.9	559.7	586.3	603.6	518.0	709.2	1224.5	1095.0	950.9	976.2	957.5
82.5°	405.8	360.6	475.4	492.7	431.5	627.6	1144.2	1017.4	858.6	779.7	761.1
85°	207.1	228.4	353.9	375.2	332.6	515.4	1047.1	915.0	754.4	648.9	659.5
87.5°	116.2	156.1	225.7	252.4	235.1	396.5	849.3	754.4	615.6	500.7	440.8
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)