

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: P302821

Luminaire Tested: **GLNA-AF-10-LED-E1-T4W-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302821
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-7060
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 58306.6 lumens
Efficiency: N/A
Efficacy: 104.5 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

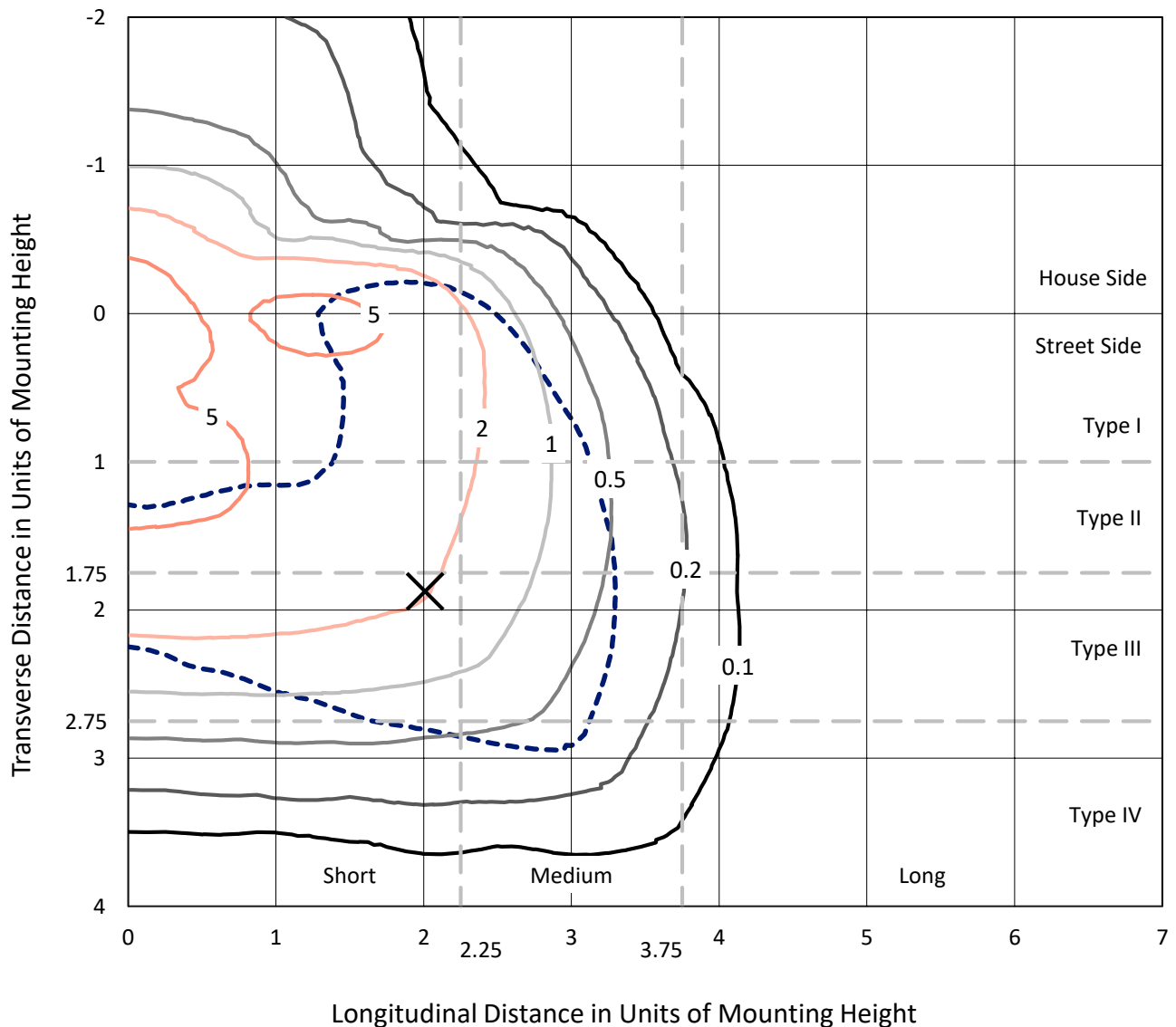
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

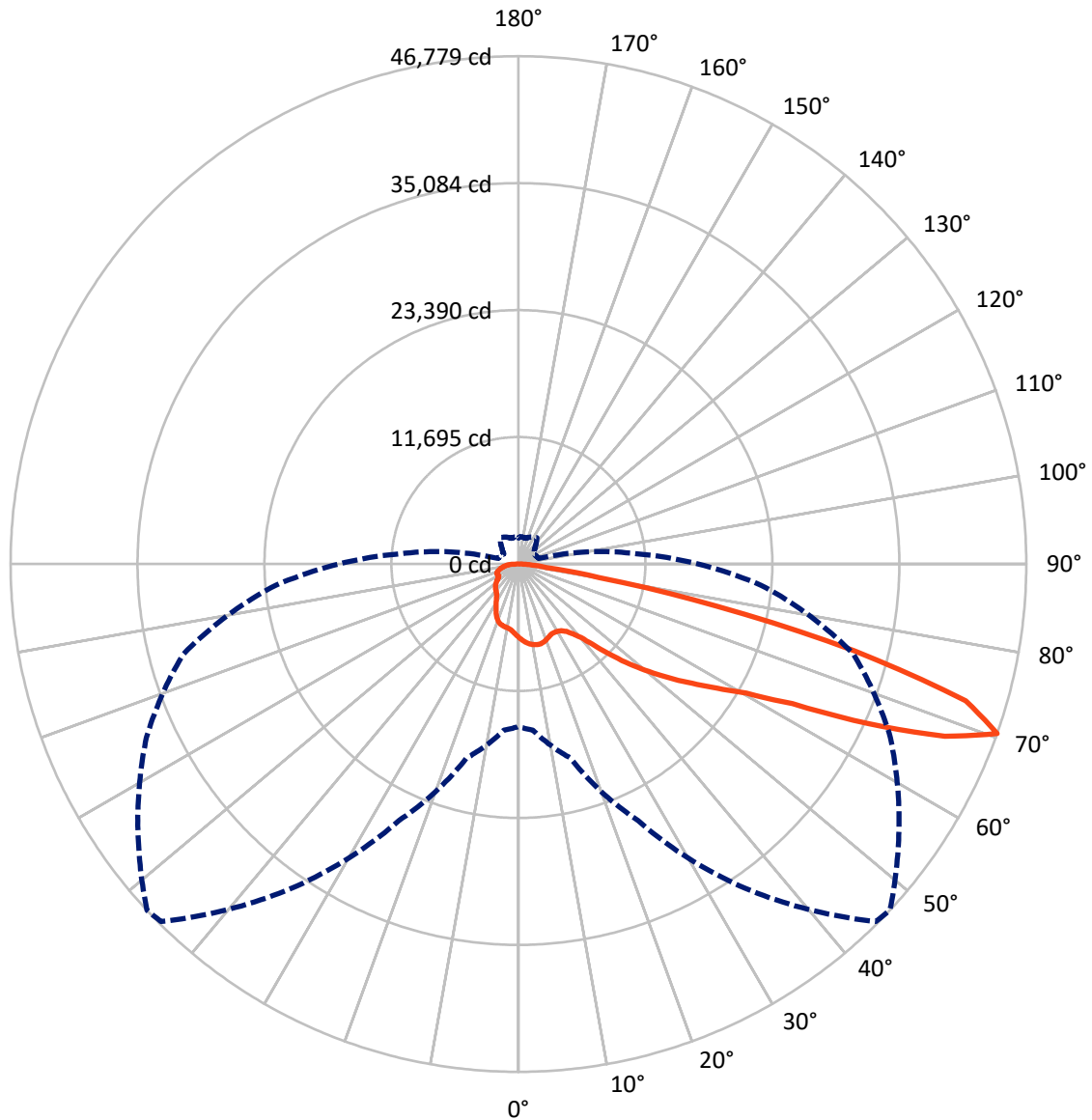
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.7 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	12163.9	0.0	12163.9
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	46142.7	0.0	46142.7
	% Fixture	79.1	0.0	79.1
Total	Lumens	58306.6	0.0	58306.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	648.2	1.1
10°-20°	1901.8	3.3
20°-30°	2808.4	4.8
30°-40°	4082.0	7.0
40°-50°	7346.0	12.6
50°-60°	12726.3	21.8
60°-70°	18164.1	31.2
70°-80°	9324.4	16.0
80°-90°	1305.4	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°	58306.6	100.0
0°-180°	58306.6	100.0

Coefficient of Utilization



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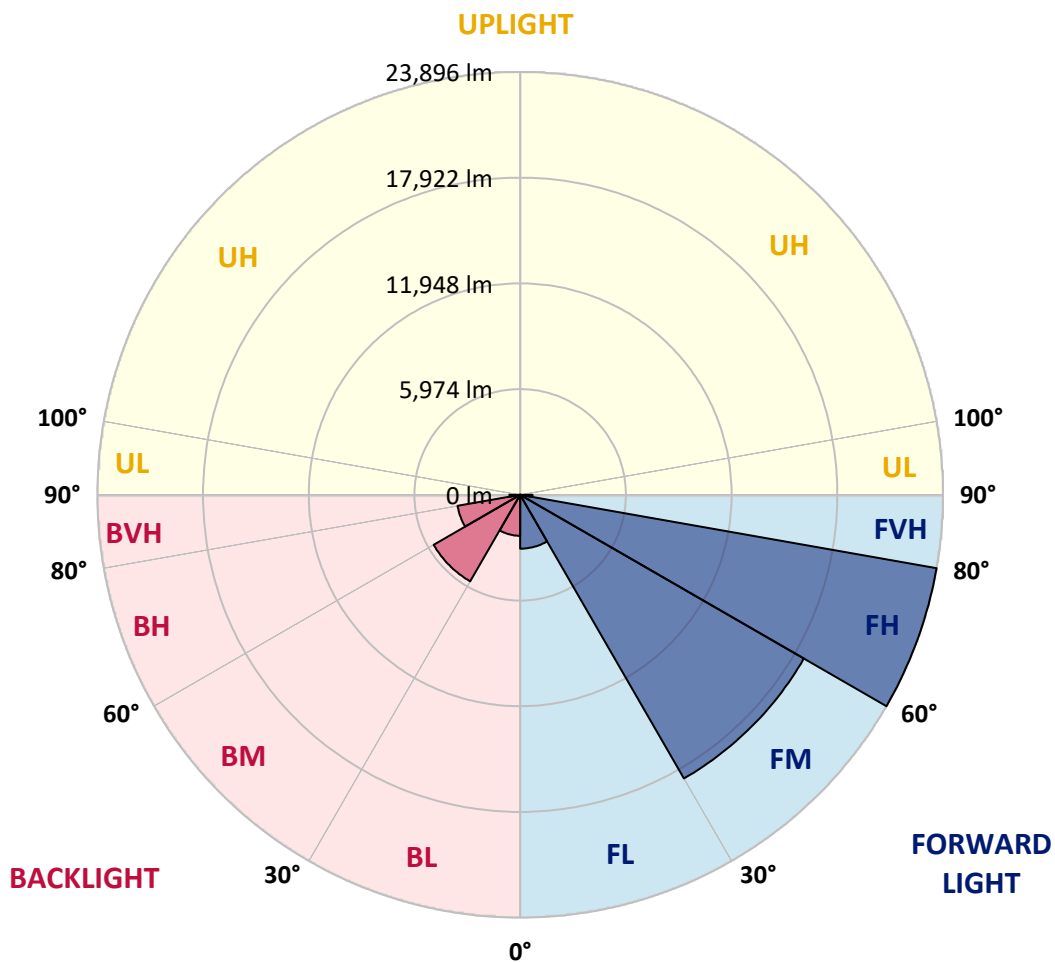
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3042.3	5.2			
FM	(30°-60°)	18508.1	31.7			
FH	(60°-80°)	23895.6	41.0			G5
FVH	(80°-90°)	696.6	1.2			G4/750
BL	(0°-30°)	2316.1	4.0	B3/2500		
BM	(30°-60°)	5646.1	9.7	B4/8500		
BH	(60°-80°)	3592.9	6.2	B4/5000		G4/5000
BVH	(80°-90°)	608.8	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°	6765.2	6765.2	6765.2	6765.2	6765.2	6765.2	6765.2	6765.2	6765.2	6765.2	6765.2
2.5°	7162.8	7148.7	7143.0	7131.7	7117.6	7046.0	7031.8	6981.0	6910.3	6835.9	6759.6
5°	7633.9	7631.0	7599.0	7542.5	7452.0	7295.6	7258.9	7134.5	6966.8	6804.8	6643.7
7.5°	8047.4	8022.0	7962.6	7848.7	7690.4	7477.5	7426.6	7253.2	7023.4	6802.0	6583.4
10°	8350.8	8336.7	8206.7	8050.3	7843.0	7607.5	7548.1	7355.0	7102.5	6821.8	6549.5
12.5°	8524.1	8495.9	8345.1	8158.6	7911.8	7681.9	7621.6	7426.6	7143.0	6821.8	6501.4
15°	8512.8	8493.1	8342.3	8137.9	7889.2	7687.6	7633.9	7437.9	7134.5	6793.5	6439.3
17.5°	8285.8	8294.3	8167.1	7965.5	7761.0	7607.5	7559.4	7378.5	7077.1	6737.0	6365.8
20°	7889.2	7928.7	7843.0	7664.9	7550.9	7446.4	7415.3	7261.7	6989.5	6655.0	6285.7
22.5°	7491.6	7528.3	7494.4	7343.7	7326.7	7264.5	7247.6	7137.4	6913.1	6604.1	6237.7
25°	7199.5	7233.5	7227.8	7096.9	7148.7	7145.8	7131.7	7077.1	6896.2	6604.1	6246.1
27.5°	7120.4	7131.7	7120.4	7000.8	7071.4	7128.9	7117.6	7108.2	6947.1	6686.1	6354.5
30°	7392.7	7375.7	7287.2	7046.0	7111.9	7191.1	7179.8	7185.4	7099.7	6901.8	6595.7
32.5°	8478.9	8401.7	8123.7	7446.4	7273.0	7315.4	7321.1	7415.3	7429.4	7233.5	6969.7
35°	10104.0	10019.3	9658.4	8518.5	7775.2	7628.2	7628.2	7769.5	7854.3	7710.2	7550.9
37.5°	11826.2	11732.0	11539.8	10005.1	8830.3	8169.9	8155.8	8254.7	8376.2	8411.1	8450.7
40°	13783.0	13684.0	13737.7	11672.6	10302.8	9108.2	8906.6	8836.0	9164.8	9383.3	9701.8
42.5°	15925.3	15879.1	15898.9	13530.5	11978.8	10512.9	10226.5	9860.0	10257.6	10645.8	11312.8
45°	17907.5	17947.0	17927.3	15519.2	13846.1	12225.7	11922.3	11212.9	11602.0	12268.1	13355.2
47.5°	19643.8	19478.9	19734.2	17691.7	15936.6	14143.8	13768.8	12819.2	13213.0	14035.4	15873.5
50°	21751.3	21728.6	21354.6	20591.5	18463.3	16069.4	15578.6	14478.2	15090.6	16234.3	19048.4
52.5°	23967.1	23555.4	23212.5	22846.0	21144.5	18044.1	17442.1	16131.6	17297.9	18735.6	22917.6
55°	24420.2	24236.5	24661.4	25277.5	23728.7	20095.0	19394.1	18205.2	19783.2	21595.8	27379.4
57.5°	25390.6	25387.8	26267.7	27365.2	26389.2	22270.4	21563.8	20710.2	22576.5	24871.5	32116.3
60°	26046.3	26230.0	27864.6	29994.6	29001.7	24783.9	24133.8	23600.6	25754.2	28533.4	36530.0
62.5°	26389.2	26638.9	28868.8	31061.1	32694.7	28967.8	28318.6	27549.9	29957.9	32550.6	39111.4
65°	24962.9	25452.8	28712.4	31983.4	35928.9	35749.9	35457.9	34107.9	35213.9	35724.5	38178.7
67.5°	21013.6	21515.7	25311.5	31123.3	38238.0	42291.9	42354.1	40047.8	38448.1	35996.8	32099.3
70°	14971.9	15365.7	18506.7	26094.3	36479.1	46566.2	46779.1	42784.6	37803.7	31923.1	22426.7
72.5°	7108.2	7349.3	10322.6	16983.3	28948.0	42665.9	43077.6	39290.4	32144.5	23634.5	12234.1
75°	2612.4	2685.9	3488.6	7225.0	16790.1	31464.3	31949.5	28165.1	21308.5	11766.9	4660.6
77.5°	1565.8	1613.8	1957.7	3049.6	6604.1	17984.7	18701.7	15317.6	9312.7	4379.8	2292.1
80°	1094.7	1128.6	1403.7	1897.4	3120.2	6853.8	7491.6	6251.8	3710.0	2771.7	1667.5
82.5°	740.5	757.5	987.3	1282.2	2073.6	2447.6	2640.7	2780.1	2502.2	2062.3	1058.0
85°	485.2	502.1	669.8	845.1	1318.9	1265.2	1293.5	1636.4	1826.7	1400.9	586.9
87.5°	277.9	289.2	403.2	451.3	647.2	536.1	541.7	862.0	1169.1	944.9	357.1
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°	6765.2	6765.2	6765.2	6765.2	6765.2	6765.2	6765.2	6765.2	6765.2	6765.2	6765.2
2.5°	6739.8	6703.1	6621.1	6569.3	6521.2	6509.9	6490.1	6487.3	6484.5	6484.5	6476.0
5°	6589.1	6526.9	6399.7	6328.1	6268.7	6263.1	6260.3	6274.4	6280.1	6285.7	6277.2
7.5°	6493.0	6408.2	6249.0	6147.2	6076.6	6058.7	6087.9	6152.9	6195.3	6212.2	6203.7
10°	6433.6	6328.1	6144.4	6033.2	5973.9	5965.4	6002.1	6079.4	6167.0	6200.9	6198.1
12.5°	6365.8	6246.1	6050.2	5934.3	5900.4	5917.3	5965.4	6036.0	6127.4	6181.1	6184.0
15°	6297.0	6158.5	5956.9	5855.2	5841.0	5863.6	5908.9	5962.6	6033.2	6087.9	6093.5
17.5°	6215.0	6070.0	5869.3	5763.8	5752.5	5763.8	5766.6	5794.9	5841.0	5891.9	5906.0
20°	6127.4	5979.5	5769.4	5664.9	5614.0	5568.8	5516.9	5522.6	5536.7	5588.5	5599.9
22.5°	6064.3	5917.3	5693.1	5548.0	5412.4	5275.8	5174.0	5159.9	5165.5	5207.9	5222.1
25°	6070.0	5914.5	5673.3	5423.7	5126.0	4907.4	4770.8	4748.2	4745.4	4776.5	4797.2
27.5°	6181.1	6024.7	5746.8	5295.6	4814.1	4490.1	4345.9	4329.0	4306.3	4314.8	4337.4
30°	6428.0	6282.9	5925.8	5165.5	4475.9	4082.1	3931.4	3914.4	3883.3	3869.2	3886.2
32.5°	6830.2	6711.5	6186.8	5040.2	4138.7	3732.6	3580.0	3543.2	3523.5	3506.5	3520.6
35°	7500.1	7449.2	6535.4	4904.6	3841.0	3463.2	3324.7	3268.2	3239.9	3271.0	3293.6
37.5°	8549.6	8577.8	6992.3	4691.7	3611.1	3285.1	3168.3	3103.3	3060.9	3086.3	3111.8
40°	10036.2	10056.0	7497.2	4391.1	3412.3	3179.6	3055.2	2995.9	2935.6	2890.4	2887.5
42.5°	11987.3	11786.6	7993.7	4065.2	3182.4	3114.6	2976.1	2901.7	2811.2	2685.9	2660.5
45°	14302.1	13596.4	8370.6	3690.2	2924.3	3035.5	2887.5	2785.8	2643.5	2507.9	2493.7
47.5°	16969.1	15539.0	8555.2	3302.1	2683.1	2918.6	2780.1	2618.1	2439.1	2371.3	2362.8
50°	20225.0	17845.3	8642.8	2924.3	2474.0	2766.0	2623.8	2433.4	2283.7	2269.5	2261.0
52.5°	23933.2	20619.8	8672.0	2615.3	2300.6	2567.2	2496.6	2311.9	2192.3	2204.5	2204.5
55°	27813.7	23484.7	8285.8	2391.1	2141.4	2362.8	2410.8	2263.9	2164.0	2210.2	2227.1
57.5°	31375.8	26023.7	7071.4	2218.7	1991.6	2207.3	2379.7	2309.1	2241.3	2425.0	2436.3
60°	34110.7	27523.5	5281.4	2062.3	1880.4	2152.7	2462.7	2482.4	2499.4	2938.4	2998.7
62.5°	34683.5	27025.1	3630.9	1940.7	1829.6	2198.9	2612.4	2615.3	2595.5	2901.7	2938.4
65°	32054.1	23867.2	2640.7	1872.0	1787.2	2280.8	2740.6	2680.3	2550.3	2783.0	2714.2
67.5°	25455.6	17981.9	2198.9	1821.1	1725.0	2275.2	2876.2	2740.6	2524.8	2726.4	2615.3
70°	16523.5	10872.8	1957.7	1778.7	1650.6	2166.8	2955.4	2734.9	2450.4	2536.1	2405.2
72.5°	8061.6	4862.2	1795.6	1716.5	1574.3	2017.0	2952.5	2683.1	2374.1	2368.4	2297.8
75°	3154.2	2227.1	1647.7	1622.3	1444.2	1846.5	2873.4	2609.6	2283.7	2192.3	2166.8
77.5°	1846.5	1588.4	1461.2	1483.8	1287.9	1676.0	2757.5	2482.4	2158.4	2051.0	2022.7
80°	1344.4	1188.9	1245.5	1282.2	1100.4	1506.4	2601.1	2326.0	2019.9	2073.6	2034.0
82.5°	862.0	765.9	1009.9	1046.7	916.7	1333.1	2430.6	2161.2	1823.9	1656.2	1616.6
85°	440.0	485.2	751.8	797.0	706.6	1094.7	2224.3	1943.6	1602.5	1378.3	1400.9
87.5°	246.8	331.6	479.5	536.1	499.3	842.2	1804.1	1602.5	1307.6	1063.6	936.4
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)