

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: P299234

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299234
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
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-SL2-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14936.8 lumens
Efficiency: N/A
Efficacy: 115.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

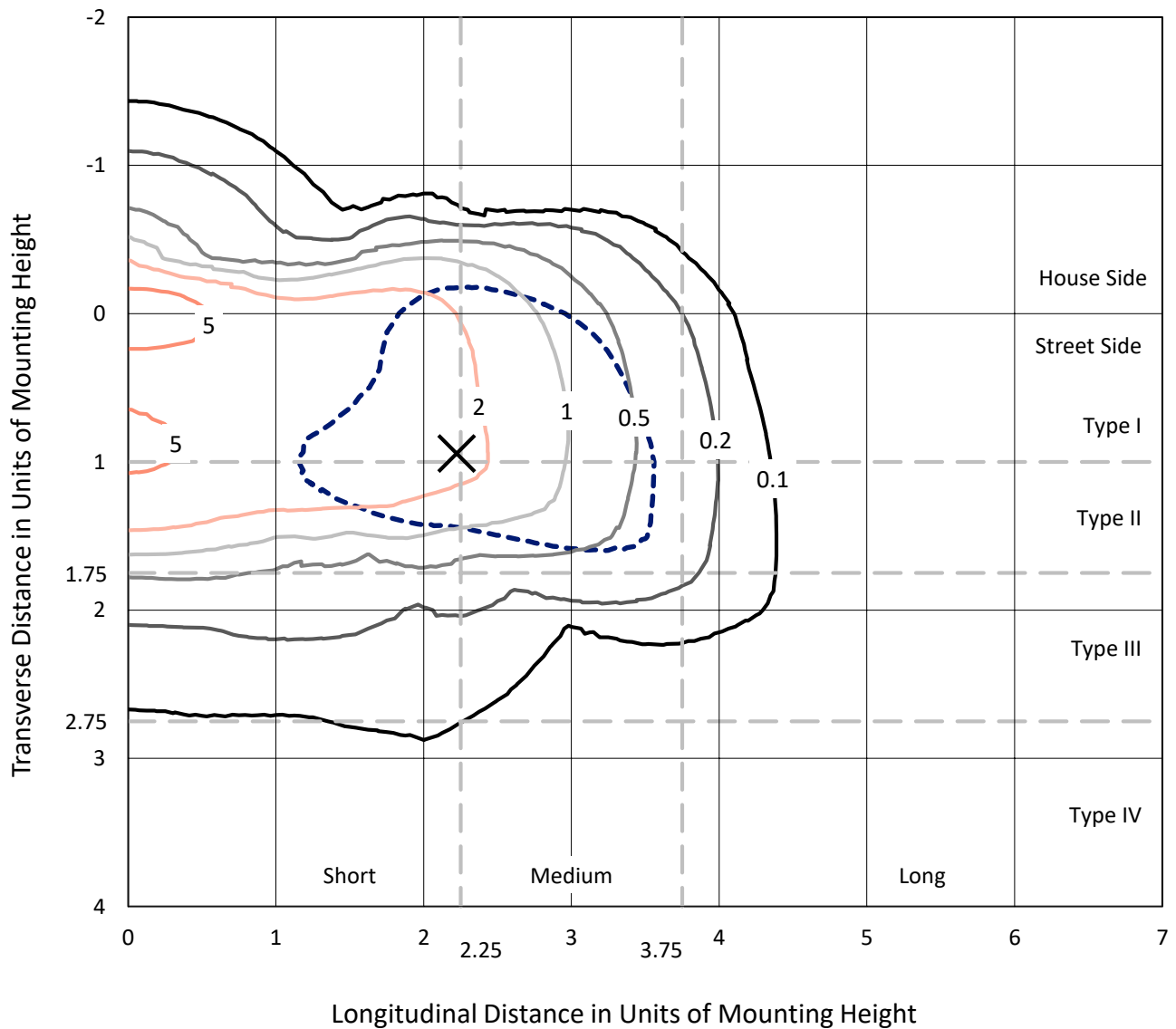
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

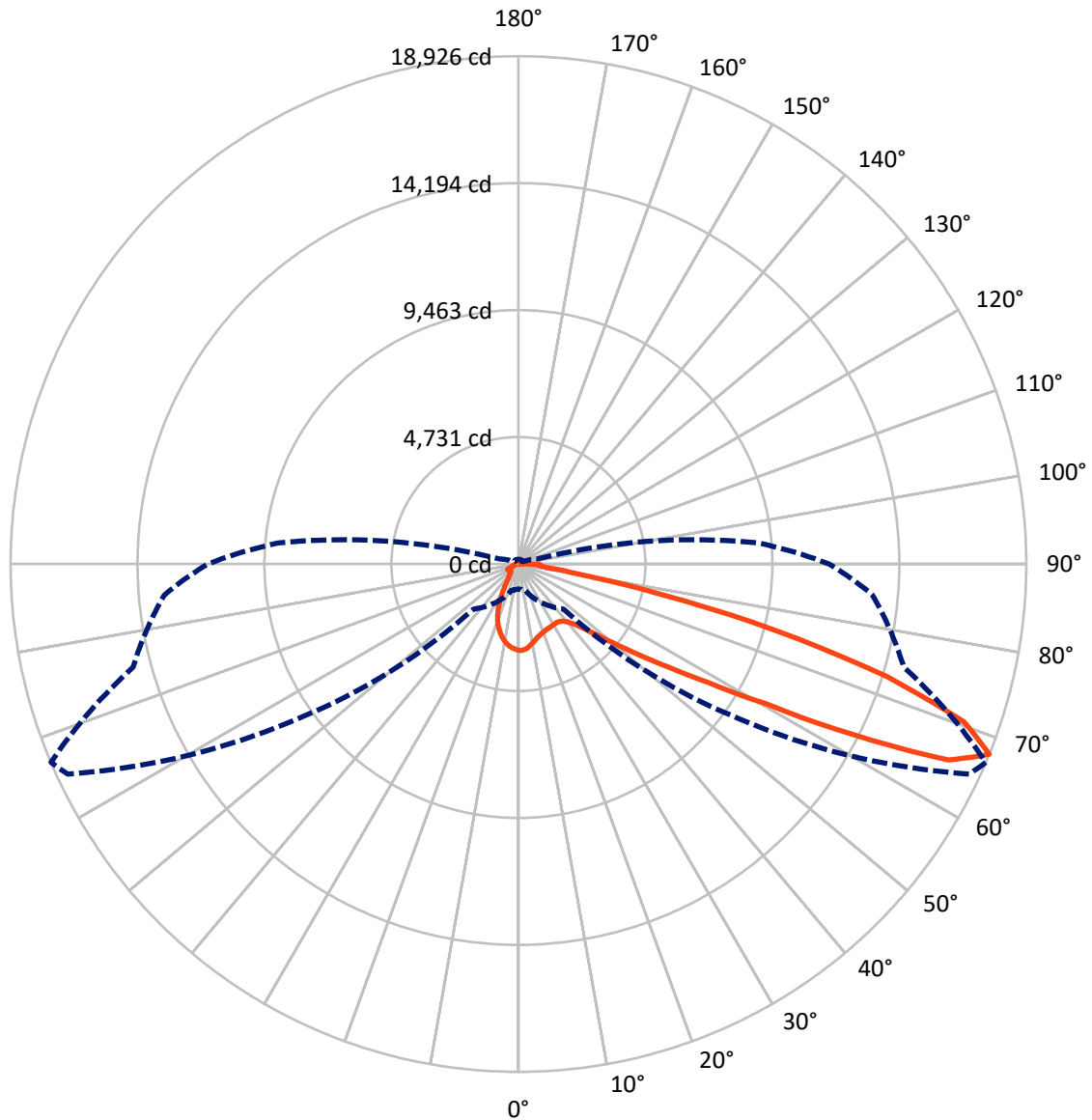
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.1 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2474.9	0.0	2474.9
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	12461.9	0.0	12461.9
	% Fixture	83.4	0.0	83.4
Total	Lumens	14936.8	0.0	14936.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.9	1.8
10°-20°	636.0	4.3
20°-30°	862.1	5.8
30°-40°	1225.6	8.2
40°-50°	2050.5	13.7
50°-60°	3243.8	21.7
60°-70°	4132.3	27.7
70°-80°	2164.5	14.5
80°-90°	347.1	2.3
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°	14936.8	100.0
0°-180°	14936.8	100.0

Coefficient of Utilization



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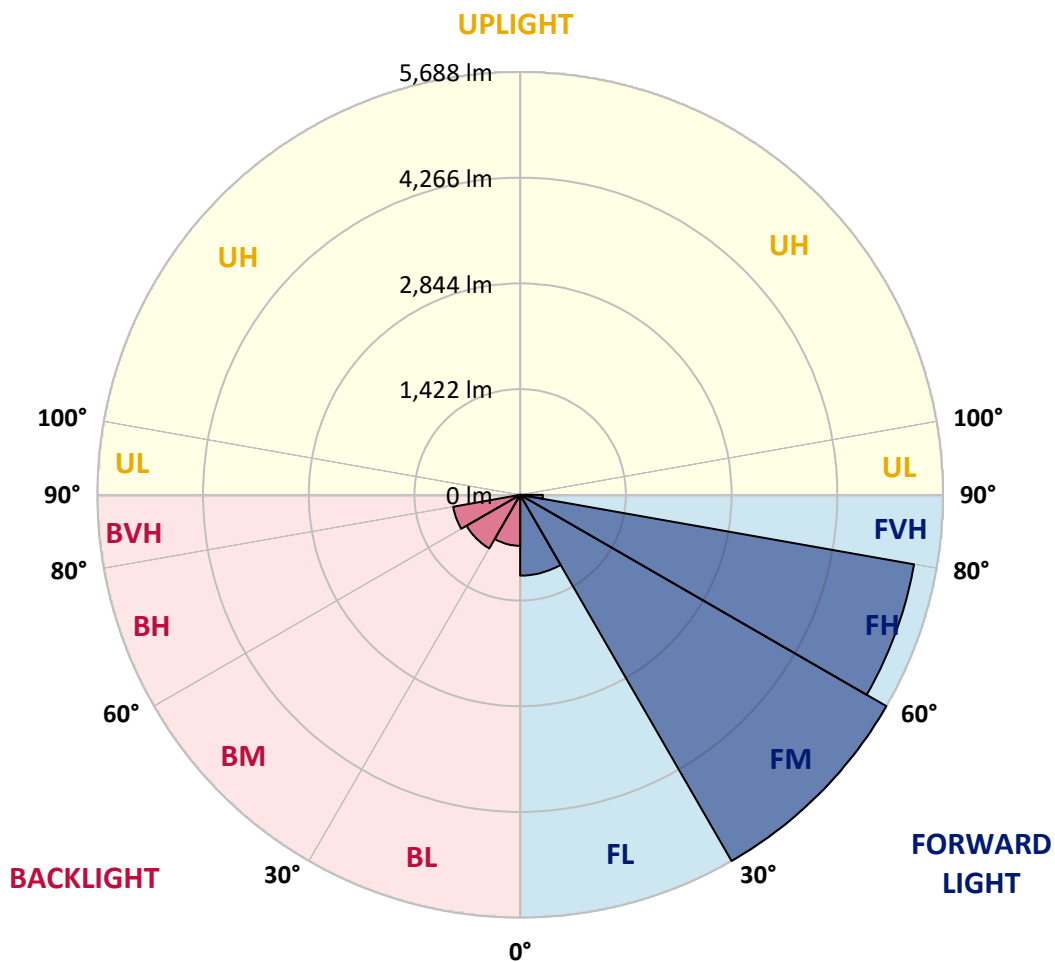
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1087.0	7.3			
FM	(30°-60°)	5688.2	38.1			
FH	(60°-80°)	5381.4	36.0			G3/7500
FVH	(80°-90°)	305.2	2.0			G3/500
BL	(0°-30°)	686.0	4.6	B2/1000		
BM	(30°-60°)	831.6	5.6	B1/1000		
BH	(60°-80°)	915.4	6.1	B2/1000		G2/1000
BVH	(80°-90°)	41.9	0.3			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3221.8	3221.8	3221.8	3221.8	3221.8	3221.8	3221.8	3221.8	3221.8	3221.8	3221.8
2.5°	3089.2	3094.4	3110.6	3120.9	3167.3	3187.2	3201.2	3215.2	3217.4	3224.0	3217.4
5°	2765.1	2776.2	2806.4	2840.3	2930.1	3000.8	3075.2	3152.6	3166.6	3216.7	3230.7
7.5°	2514.0	2511.0	2536.1	2576.6	2668.6	2766.6	2897.0	3050.9	3081.1	3193.8	3248.3
10°	2330.6	2328.3	2354.9	2396.8	2484.5	2577.3	2724.6	2935.3	2978.0	3157.7	3265.3
12.5°	2195.0	2195.8	2222.3	2268.7	2357.8	2451.4	2600.9	2823.3	2877.8	3115.8	3283.0
15°	2105.2	2111.1	2132.4	2181.8	2268.7	2362.2	2508.8	2739.4	2800.5	3082.6	3302.8
17.5°	2075.0	2084.5	2091.9	2128.0	2202.4	2295.9	2439.6	2677.5	2742.3	3059.8	3320.5
20°	2103.0	2114.0	2100.0	2112.5	2159.7	2242.2	2385.1	2628.9	2695.2	3034.0	3322.7
22.5°	2223.0	2233.3	2192.1	2156.0	2153.0	2203.1	2340.1	2590.6	2659.1	3014.8	3323.5
25°	2434.4	2441.0	2371.8	2287.8	2206.1	2189.1	2308.5	2564.1	2637.0	2997.9	3309.5
27.5°	2693.7	2698.8	2619.3	2495.6	2331.3	2222.3	2297.4	2548.6	2624.5	2983.2	3285.9
30°	3009.0	3033.3	2926.5	2770.3	2530.9	2320.2	2319.5	2540.5	2610.5	2958.1	3239.5
32.5°	3331.6	3341.9	3268.2	3109.9	2799.8	2492.6	2381.4	2546.4	2606.8	2927.9	3180.6
35°	3658.6	3671.9	3624.0	3496.6	3167.3	2745.3	2502.2	2581.0	2629.6	2917.6	3139.3
37.5°	4082.2	4099.8	4033.5	3886.2	3614.4	3087.8	2703.3	2667.9	2699.6	2947.1	3126.8
40°	4751.7	4743.6	4549.9	4330.4	4103.5	3526.0	2990.5	2815.2	2833.6	3042.1	3165.1
42.5°	5531.0	5511.1	5177.5	4832.7	4641.2	4056.4	3370.6	3070.8	3067.1	3229.2	3299.9
45°	6152.7	6136.5	5836.0	5411.0	5257.7	4660.4	3861.9	3451.6	3424.4	3526.0	3548.9
47.5°	6489.3	6490.1	6317.0	5970.0	5966.3	5427.9	4493.2	4002.6	3955.5	4003.3	3979.0
50°	6371.5	6386.9	6368.5	6258.0	6613.1	6434.1	5317.4	4770.9	4675.8	4723.0	4629.4
52.5°	5801.3	5821.2	5930.2	6099.7	6884.9	7650.2	6528.4	5725.5	5615.0	5598.0	5494.2
55°	4790.8	4815.1	5037.5	5497.9	6658.7	8467.0	8439.1	6942.3	6766.3	6606.4	6562.2
57.5°	3302.1	3342.6	3700.6	4384.2	5927.3	8713.8	10714.4	8677.0	8319.0	7760.7	7771.0
60°	1861.4	1908.5	2330.6	2951.5	4451.2	8445.7	12445.3	11304.4	10548.6	9112.3	9188.9
62.5°	1183.7	1234.5	1554.9	2050.7	2670.9	7002.0	13154.7	14957.1	13997.3	10778.5	10853.6
65°	958.3	980.4	1131.4	1692.7	1939.4	4218.4	12616.2	17966.1	17608.1	12893.2	12542.6
67.5°	935.5	942.8	1020.9	1420.9	1859.9	2371.1	10063.2	18528.8	18925.8	14868.0	13246.0
70°	924.4	950.2	1150.5	1356.1	1781.1	1999.8	6047.4	16986.4	17613.2	15384.3	12309.8
72.5°	448.6	447.1	579.0	1226.4	2006.5	2074.2	3106.9	13743.9	14373.0	13328.5	10115.5
75°	361.7	330.7	316.0	449.3	1929.1	2142.0	1979.9	9457.0	9912.2	8936.3	6218.3
77.5°	343.2	306.4	280.6	281.4	815.4	2271.6	1677.2	5234.2	5366.8	4036.5	1703.7
80°	284.3	250.4	232.0	261.5	394.8	2163.4	1813.5	2368.9	2173.7	991.4	567.2
82.5°	197.4	179.7	174.6	219.5	316.0	1541.7	2108.8	1272.8	1067.3	496.5	349.9
85°	126.0	107.5	119.3	159.8	246.0	711.5	2172.2	992.2	788.9	315.3	197.4
87.5°	58.2	47.1	58.9	88.4	160.6	245.3	2066.9	1114.5	812.5	166.5	124.5
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°	3221.8	3221.8	3221.8	3221.8	3221.8	3221.8	3221.8	3221.8	3221.8	3221.8	3221.8
2.5°	3223.3	3209.3	3198.3	3177.6	3154.8	3132.7	3112.8	3087.8	3080.4	3073.8	3084.1
5°	3233.6	3219.6	3179.1	3115.8	3045.8	2980.2	2914.7	2858.7	2824.1	2804.9	2816.0
7.5°	3249.1	3229.2	3145.2	3028.8	2902.9	2788.0	2669.4	2574.4	2504.4	2471.2	2480.8
10°	3263.1	3224.8	3087.8	2913.2	2729.0	2558.2	2371.1	2216.4	2101.5	2041.1	2055.8
12.5°	3269.0	3207.8	3007.5	2768.8	2516.2	2265.7	1990.3	1759.0	1594.0	1533.6	1521.0
15°	3274.9	3188.7	2919.1	2604.6	2259.1	1904.8	1518.8	1241.9	1104.9	1074.7	1068.0
17.5°	3276.3	3155.5	2818.9	2426.3	1957.8	1475.4	1038.6	862.5	863.3	911.9	917.8
20°	3260.9	3106.2	2697.4	2204.6	1596.9	1020.2	713.0	682.8	794.0	915.6	930.3
22.5°	3225.5	3040.6	2559.6	1946.1	1183.7	671.8	551.7	584.8	728.5	877.3	894.2
25°	3180.6	2961.1	2396.8	1646.3	783.7	480.3	462.6	503.1	600.3	699.8	709.3
27.5°	3119.4	2866.8	2214.2	1303.0	509.0	395.5	407.3	434.6	474.4	518.6	523.0
30°	3040.6	2754.1	2019.0	950.2	384.5	355.8	372.7	387.4	404.4	429.4	431.6
32.5°	2950.0	2645.8	1818.6	656.3	341.0	335.1	348.4	355.8	369.0	384.5	386.0
35°	2874.2	2542.7	1610.9	464.0	322.6	319.7	328.5	331.5	344.0	360.9	362.4
37.5°	2830.7	2458.7	1396.6	374.2	310.1	305.7	310.8	310.8	328.5	353.6	357.2
40°	2833.6	2412.3	1182.2	338.1	299.8	293.9	294.6	294.6	317.5	344.7	346.9
42.5°	2913.9	2424.1	992.2	324.1	291.7	285.1	281.4	283.6	302.7	320.4	321.9
45°	3102.5	2507.3	813.9	315.3	283.6	281.4	273.3	272.5	279.9	288.0	288.0
47.5°	3411.9	2671.6	693.1	309.4	277.0	276.2	266.6	257.1	256.3	259.3	259.3
50°	3915.0	2954.4	612.1	302.7	272.5	266.6	255.6	240.9	235.7	237.9	237.9
52.5°	4669.2	3459.0	581.2	293.9	263.0	253.4	240.9	226.1	221.7	222.4	222.4
55°	5658.4	4233.9	576.7	283.6	252.6	237.2	226.9	215.8	210.7	212.1	212.1
57.5°	6867.2	5305.6	655.6	267.4	238.7	221.0	215.1	207.7	204.0	206.2	205.5
60°	8336.7	6708.1	972.3	250.4	224.7	206.2	206.2	200.4	197.4	199.6	198.9
62.5°	10029.3	8319.0	1367.1	237.9	209.9	194.5	197.4	194.5	191.5	193.0	192.2
65°	11530.5	9368.6	1280.2	228.3	195.2	183.4	188.6	187.1	184.9	186.4	185.6
67.5°	11574.0	8979.7	718.9	218.0	181.2	172.4	179.7	179.0	177.5	179.0	178.3
70°	10329.1	7582.4	405.1	198.9	166.5	159.1	169.4	168.7	167.2	170.2	169.4
72.5°	8275.5	5502.3	296.1	175.3	151.7	145.1	156.9	156.2	156.2	160.6	158.4
75°	4762.0	2831.4	236.4	150.3	136.3	131.1	141.4	142.2	143.6	149.5	145.1
77.5°	1357.5	882.4	193.0	127.4	117.1	114.9	125.2	126.7	127.4	134.1	128.2
80°	504.6	406.6	159.1	106.8	95.8	96.5	106.1	108.3	109.0	115.6	108.3
82.5°	321.9	268.1	128.9	82.5	75.1	74.4	86.2	89.1	89.1	89.9	85.4
85°	187.8	160.6	97.2	59.7	53.0	50.8	64.1	69.2	67.0	65.6	62.6
87.5°	126.0	110.5	59.7	33.1	28.7	27.3	37.6	41.2	39.8	37.6	35.4
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)