

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: P299950

Luminaire Tested: **GLNA-AF-03-LED-E1-SL3-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299950
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-SL3-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11930.8 lumens
Efficiency: N/A
Efficacy: 124.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

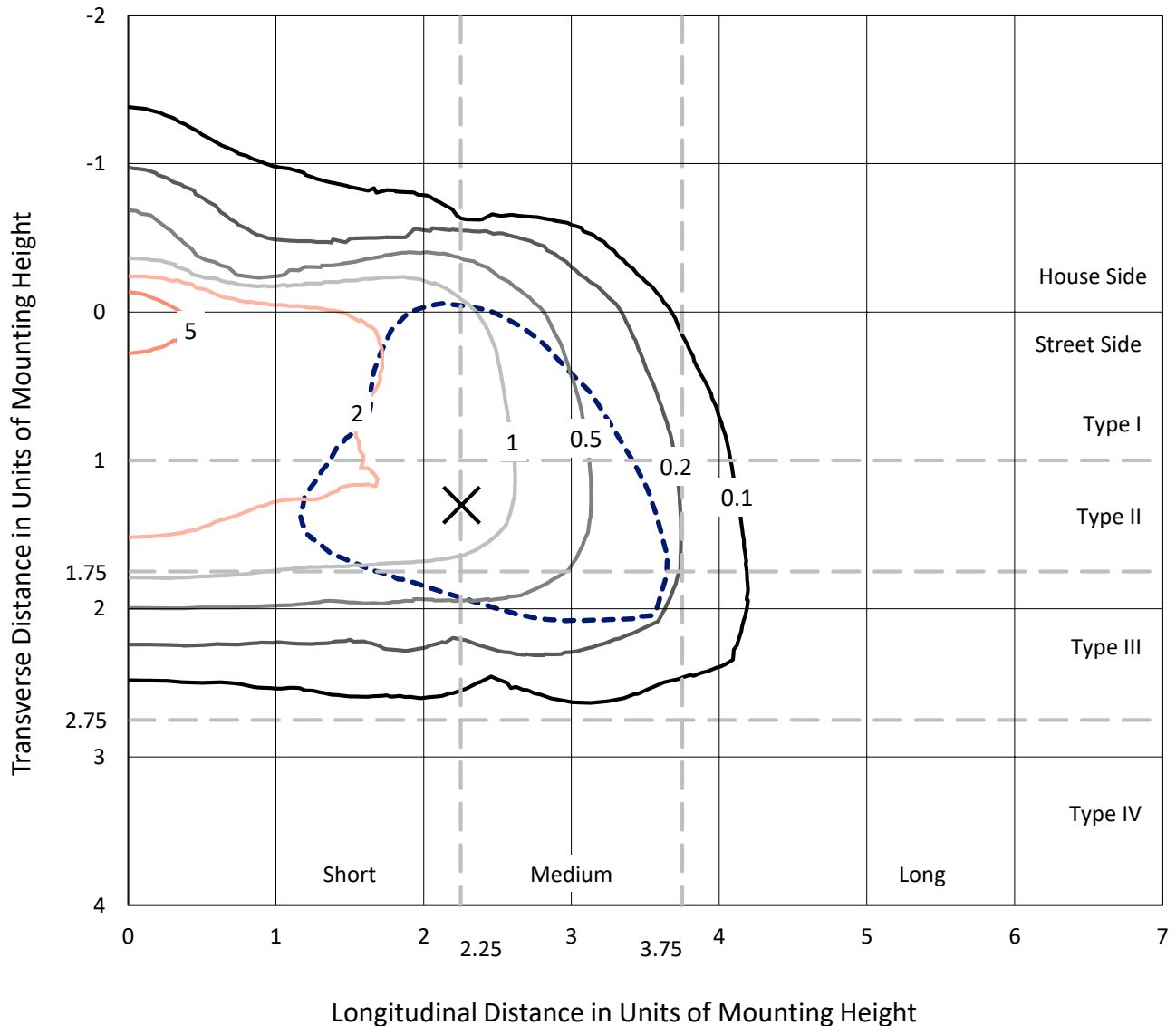
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

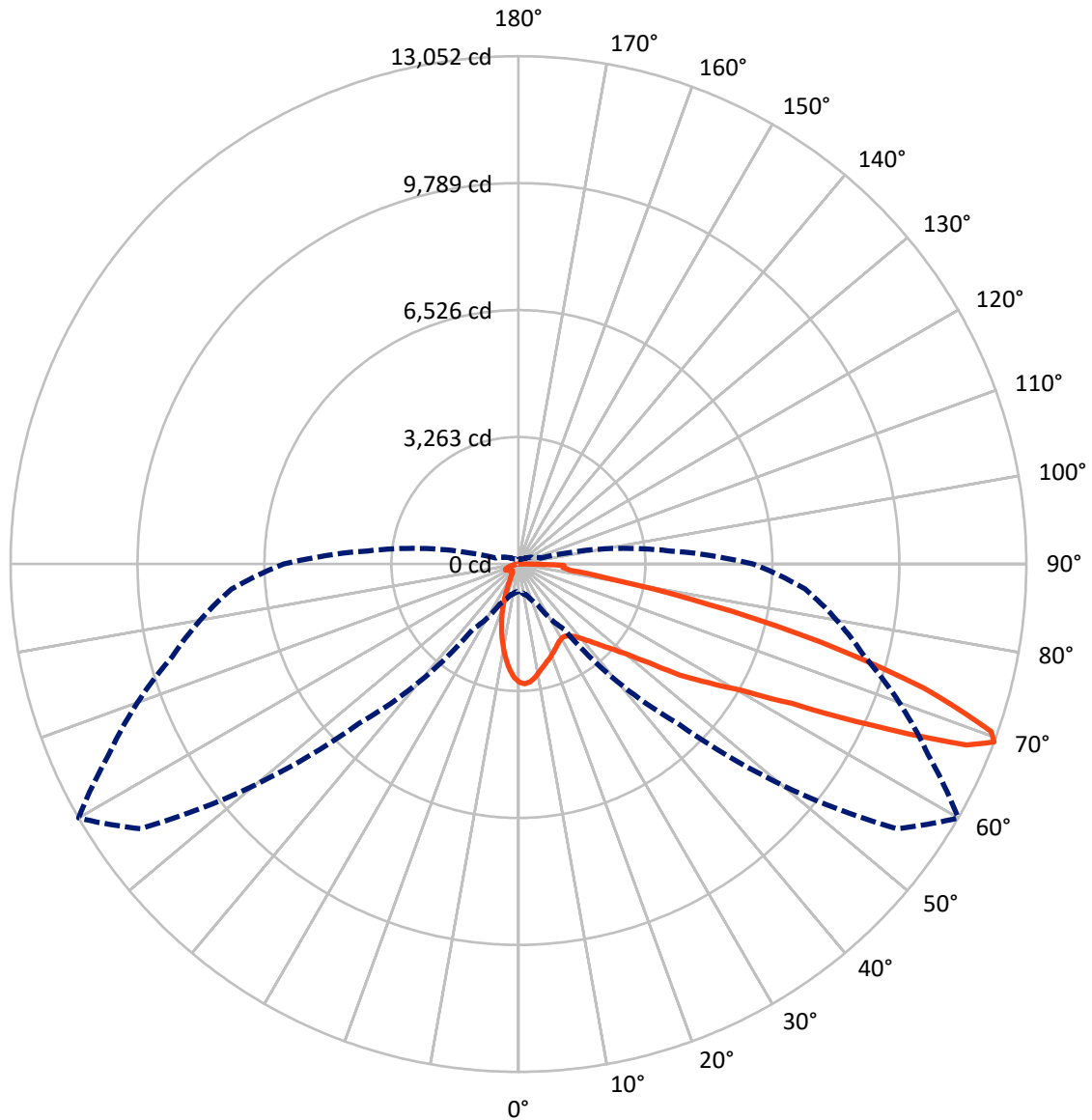
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.6 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1697.4	0.0	1697.4
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	10233.4	0.0	10233.4
	% Fixture	85.8	0.0	85.8
Total	Lumens	11930.8	0.0	11930.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.1	2.2
10°-20°	547.7	4.6
20°-30°	697.8	5.8
30°-40°	959.3	8.0
40°-50°	1556.6	13.0
50°-60°	2496.4	20.9
60°-70°	3322.6	27.8
70°-80°	1793.9	15.0
80°-90°	299.3	2.5
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°	11930.8	100.0
0°-180°	11930.8	100.0

Coefficient of Utilization



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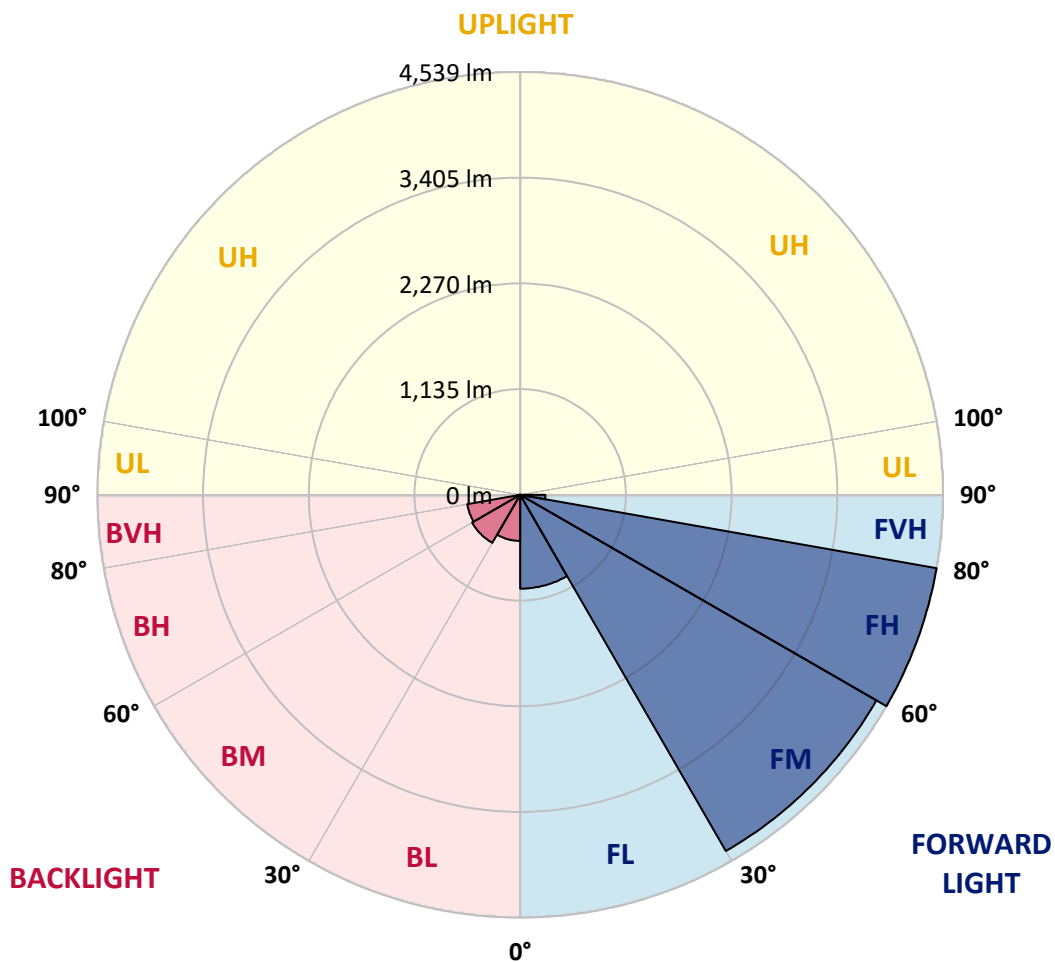
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1007.4	8.4			
FM	(30°-60°)	4416.1	37.0			
FH	(60°-80°)	4539.4	38.0			G2/5000
FVH	(80°-90°)	270.5	2.3			G3/500
BL	(0°-30°)	495.2	4.2	B1/500		
BM	(30°-60°)	596.3	5.0	B1/1000		
BH	(60°-80°)	577.1	4.8	B2/1000		G2/1000
BVH	(80°-90°)	28.8	0.2			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	3040.2	3040.2	3040.2	3040.2	3040.2	3040.2	3040.2	3040.2	3040.2	3040.2	3040.2
2.5°	3102.4	3109.3	3106.4	3104.7	3109.9	3101.8	3085.1	3079.9	3071.9	3052.8	3020.6
5°	2986.0	3006.7	3005.6	3021.1	3047.1	3054.0	3046.5	3047.6	3032.7	3009.0	2955.4
7.5°	2784.8	2793.5	2798.1	2832.1	2879.4	2917.4	2949.7	2960.0	2953.1	2933.0	2863.8
10°	2577.4	2584.3	2595.2	2635.0	2694.9	2747.4	2808.5	2843.6	2858.6	2855.2	2777.9
12.5°	2399.3	2406.2	2420.6	2465.5	2537.0	2601.6	2690.3	2734.1	2769.9	2791.2	2708.2
15°	2239.6	2254.6	2268.4	2320.3	2400.4	2485.1	2585.4	2640.8	2696.1	2743.9	2646.5
17.5°	2115.1	2130.1	2138.2	2185.5	2270.7	2374.5	2492.1	2557.2	2626.3	2704.7	2585.4
20°	2043.1	2050.0	2046.6	2073.1	2149.7	2259.8	2399.3	2474.8	2558.3	2667.8	2524.3
22.5°	2022.9	2023.5	2010.8	2007.9	2057.5	2150.3	2300.1	2391.8	2494.4	2643.6	2471.9
25°	2071.9	2070.2	2035.6	2007.4	2012.6	2066.7	2204.5	2311.1	2440.8	2638.4	2431.5
27.5°	2180.8	2186.0	2134.7	2081.7	2029.3	2027.5	2131.9	2244.2	2397.0	2662.1	2414.3
30°	2333.6	2342.2	2287.5	2220.0	2121.5	2040.2	2103.6	2204.5	2369.9	2711.1	2411.4
32.5°	2500.7	2509.9	2468.4	2397.5	2268.4	2118.6	2123.2	2207.9	2368.7	2779.7	2431.0
35°	2678.8	2689.2	2667.8	2607.9	2464.4	2263.3	2198.1	2263.8	2406.2	2884.5	2483.4
37.5°	2877.6	2893.8	2899.5	2842.5	2689.2	2454.0	2320.9	2369.9	2490.9	3030.4	2579.7
40°	3164.1	3186.5	3184.8	3103.0	2946.8	2711.6	2510.5	2523.2	2622.9	3225.2	2733.5
42.5°	3712.7	3717.3	3573.8	3395.8	3230.3	2982.5	2734.1	2723.7	2805.0	3471.8	2960.0
45°	4410.7	4391.7	4072.4	3728.3	3526.6	3293.7	3025.2	2974.5	3036.1	3772.7	3243.6
47.5°	4989.9	4946.1	4542.7	4067.8	3840.1	3632.0	3366.9	3278.2	3312.2	4113.9	3610.1
50°	5191.0	5158.2	4823.9	4350.2	4136.9	4044.7	3787.7	3662.0	3671.2	4520.8	4039.5
52.5°	5147.8	5143.2	4920.1	4536.3	4414.7	4478.1	4383.6	4213.6	4123.7	4972.6	4502.9
55°	5045.8	5055.6	4974.9	4753.0	4732.3	4896.5	5162.2	5036.6	4757.0	5428.5	4981.8
57.5°	4691.3	4716.7	4894.2	5025.6	5243.5	5487.8	5789.3	5753.5	5438.8	5921.2	5551.2
60°	3779.6	3838.4	4314.4	4972.6	5769.7	6533.9	6668.7	6585.7	6142.0	6532.7	6303.3
62.5°	2648.2	2709.3	3275.3	4305.2	5683.2	7715.4	8241.0	7883.1	7151.7	7433.5	7276.8
65°	1417.8	1447.2	1879.4	2987.1	4798.0	7959.1	10538.8	9994.2	8750.5	8544.1	8109.6
67.5°	782.1	798.2	963.6	1508.3	3073.0	7008.8	12002.7	12414.2	10748.6	9283.6	7958.0
69°	707.2	722.1	830.5	1142.3	2056.4	5795.0	11859.8	13052.2	11624.6	9210.4	7397.8
70°	691.6	705.4	802.8	1053.0	1664.4	4776.6	11380.8	12889.1	11833.3	8948.1	6909.1
72.5°	622.4	637.4	731.9	945.8	1422.4	2381.4	9015.0	10897.9	10743.4	7758.6	5240.6
75°	580.4	594.2	754.4	926.2	1361.9	1507.1	5943.1	8031.8	7897.5	5427.3	2825.8
77.5°	248.4	247.2	349.8	783.8	1382.0	1459.3	3193.5	5017.5	4577.8	2319.7	811.5
80°	166.0	163.1	166.0	230.5	1267.4	1467.3	1673.1	2546.8	1923.8	591.3	400.0
82.5°	142.9	140.6	145.8	140.6	445.5	1674.8	1422.4	1354.4	914.6	336.0	198.3
85°	96.2	92.2	125.6	126.2	210.4	1488.1	1602.2	1144.0	740.0	199.4	98.0
87.5°	46.1	45.0	73.2	89.3	123.3	604.6	1797.6	1172.3	746.4	102.0	46.7
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°	3040.2	3040.2	3040.2	3040.2	3040.2	3040.2	3040.2	3040.2	3040.2	3040.2	3040.2
2.5°	3010.8	2987.1	2964.1	2936.4	2907.6	2875.3	2859.2	2843.0	2839.0	2834.4	2818.3
5°	2927.8	2894.3	2836.7	2773.3	2706.5	2641.3	2591.8	2560.6	2537.0	2524.9	2503.6
7.5°	2820.6	2771.6	2670.7	2561.2	2448.8	2346.2	2257.5	2201.6	2148.6	2123.8	2095.5
10°	2718.6	2645.4	2488.6	2327.2	2165.9	2010.8	1865.0	1761.8	1670.2	1618.9	1582.6
12.5°	2631.0	2530.7	2313.4	2095.0	1873.7	1652.9	1434.5	1262.7	1119.2	1043.7	1005.1
15°	2545.7	2424.6	2146.8	1869.6	1585.5	1285.2	998.2	803.4	684.7	637.4	621.3
17.5°	2468.4	2313.4	1979.7	1642.5	1288.1	925.0	670.9	563.7	518.1	502.6	497.4
20°	2384.9	2201.0	1806.2	1405.1	978.0	646.6	523.9	476.6	458.2	453.6	451.3
22.5°	2304.2	2090.4	1640.2	1150.9	702.5	499.1	450.1	430.5	427.6	431.7	431.7
25°	2235.6	1991.2	1461.0	885.2	515.8	420.1	402.9	398.2	409.2	424.2	427.1
27.5°	2184.3	1910.0	1270.2	653.6	410.9	365.4	364.8	372.3	399.4	428.2	434.0
30°	2149.1	1832.7	1066.2	471.4	344.6	321.6	330.8	347.0	386.7	427.6	438.6
32.5°	2131.3	1775.7	853.5	364.8	295.1	282.4	298.0	317.6	356.7	394.8	409.2
35°	2145.1	1733.6	653.0	304.3	260.5	250.7	266.8	285.9	308.9	325.1	336.0
37.5°	2197.0	1716.9	492.8	272.6	236.9	227.7	240.3	251.3	260.5	265.1	270.3
40°	2308.8	1734.8	394.8	256.5	223.6	212.1	217.3	221.3	227.1	231.7	234.0
42.5°	2473.6	1788.4	353.9	250.1	216.7	200.0	198.8	200.6	208.1	216.7	218.4
45°	2704.2	1882.9	351.0	254.2	213.2	190.2	185.0	187.3	198.8	212.1	214.4
47.5°	2998.7	2027.0	374.0	266.3	216.1	185.0	176.4	179.2	193.6	211.5	214.4
50°	3355.4	2228.1	412.7	284.1	228.8	186.2	173.5	175.2	190.2	209.8	212.7
52.5°	3776.7	2513.4	454.7	301.4	242.1	193.6	175.8	171.7	185.6	202.9	206.3
55°	4245.3	2879.4	498.0	317.0	249.0	202.9	180.4	167.1	176.9	191.3	194.2
57.5°	4820.4	3391.1	572.9	332.0	253.6	209.2	185.0	162.5	166.0	176.4	178.7
60°	5599.1	4115.0	704.9	356.7	264.0	211.5	184.4	158.5	155.0	160.8	161.9
62.5°	6532.2	4901.1	814.9	387.9	281.3	213.2	181.0	155.6	145.8	145.8	147.0
65°	7086.0	5111.5	753.8	413.8	295.7	211.5	176.9	152.7	138.9	132.6	133.1
67.5°	6616.3	4495.4	646.1	419.0	295.1	203.4	170.6	147.5	132.0	122.2	121.6
69°	6027.9	3878.7	597.7	405.2	281.3	193.1	162.5	141.8	126.8	116.4	115.8
70°	5553.5	3502.4	566.0	390.2	266.3	185.6	156.2	136.6	122.8	113.0	111.8
72.5°	4037.8	2295.0	483.5	335.4	219.6	155.6	134.9	119.9	109.5	103.7	102.6
75°	2017.7	1094.5	392.5	272.0	168.3	124.5	110.7	100.3	95.1	93.9	93.4
77.5°	662.8	501.4	280.7	202.9	125.1	97.4	89.3	81.8	80.7	84.1	83.0
80°	364.2	291.6	178.1	134.3	85.3	71.5	70.3	66.3	68.0	73.8	72.6
82.5°	185.6	151.6	110.1	80.7	57.6	51.3	55.9	53.6	55.9	61.1	60.5
85°	91.6	83.0	69.7	49.0	38.0	32.9	39.8	41.5	42.6	46.7	46.7
87.5°	53.0	49.0	36.9	23.1	19.0	17.3	23.1	22.5	26.5	28.8	28.2
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)