

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: P299239

Luminaire Tested: **GLNA-AF-05-LED-E1-SL2-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299239
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-05-LED-E1-SL2-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16623.5 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

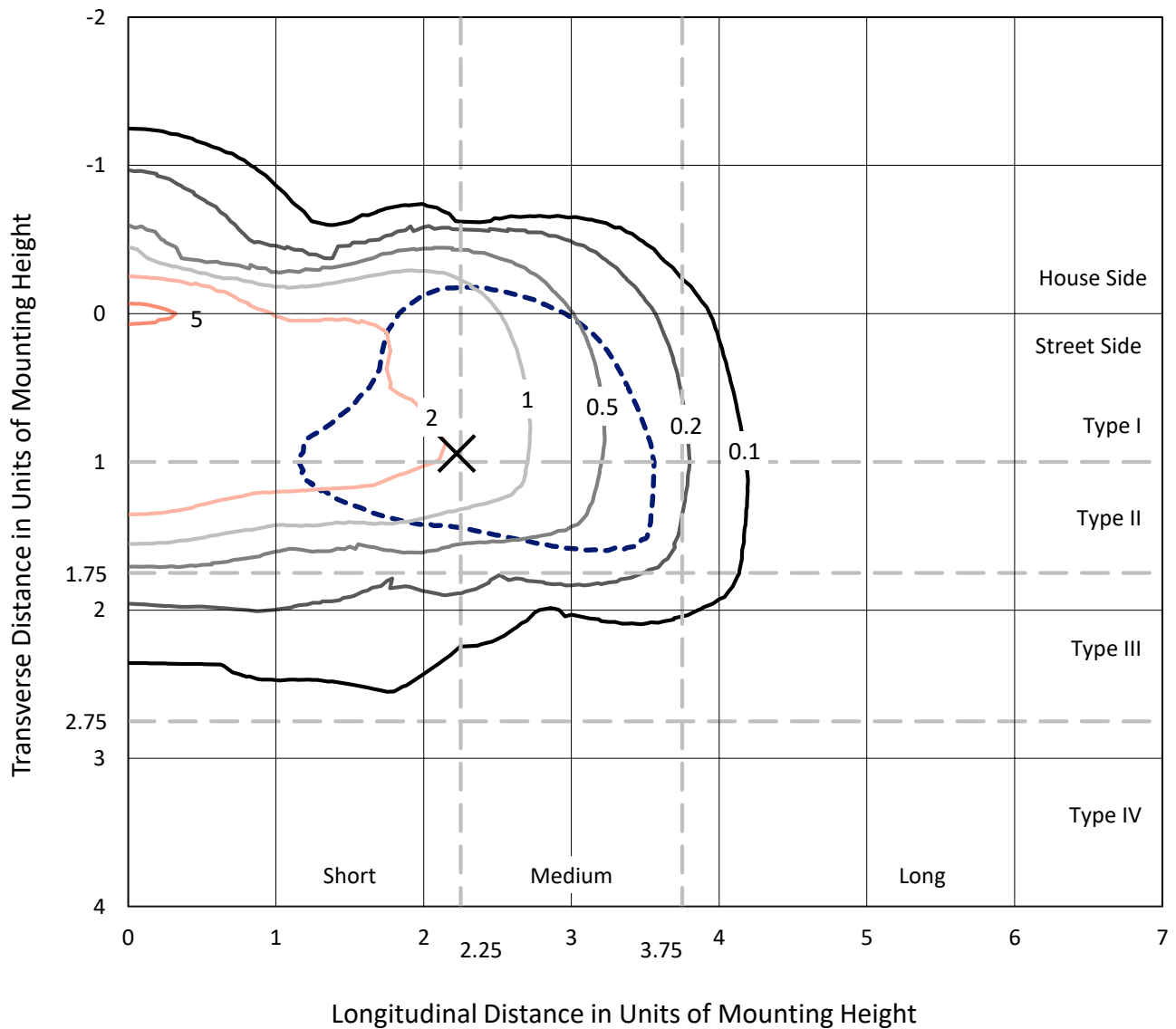
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

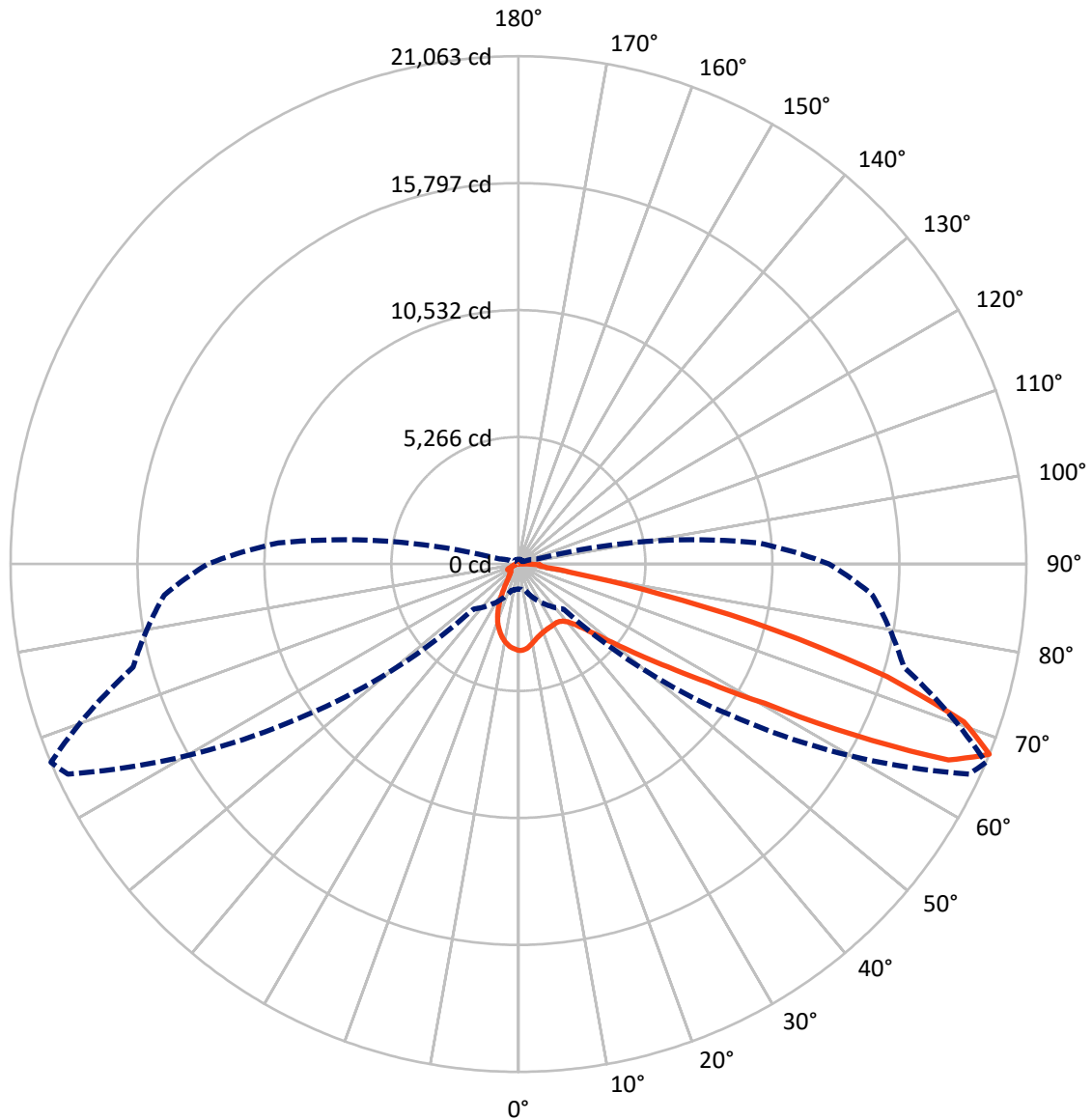
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 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	2754.3	0.0	2754.3
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	13869.2	0.0	13869.2
	% Fixture	83.4	0.0	83.4
Total	Lumens	16623.5	0.0	16623.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.9	1.8
10°-20°	707.8	4.3
20°-30°	959.5	5.8
30°-40°	1364.0	8.2
40°-50°	2282.0	13.7
50°-60°	3610.1	21.7
60°-70°	4598.9	27.7
70°-80°	2408.9	14.5
80°-90°	386.4	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°	16623.5	100.0
0°-180°	16623.5	100.0

Coefficient of Utilization



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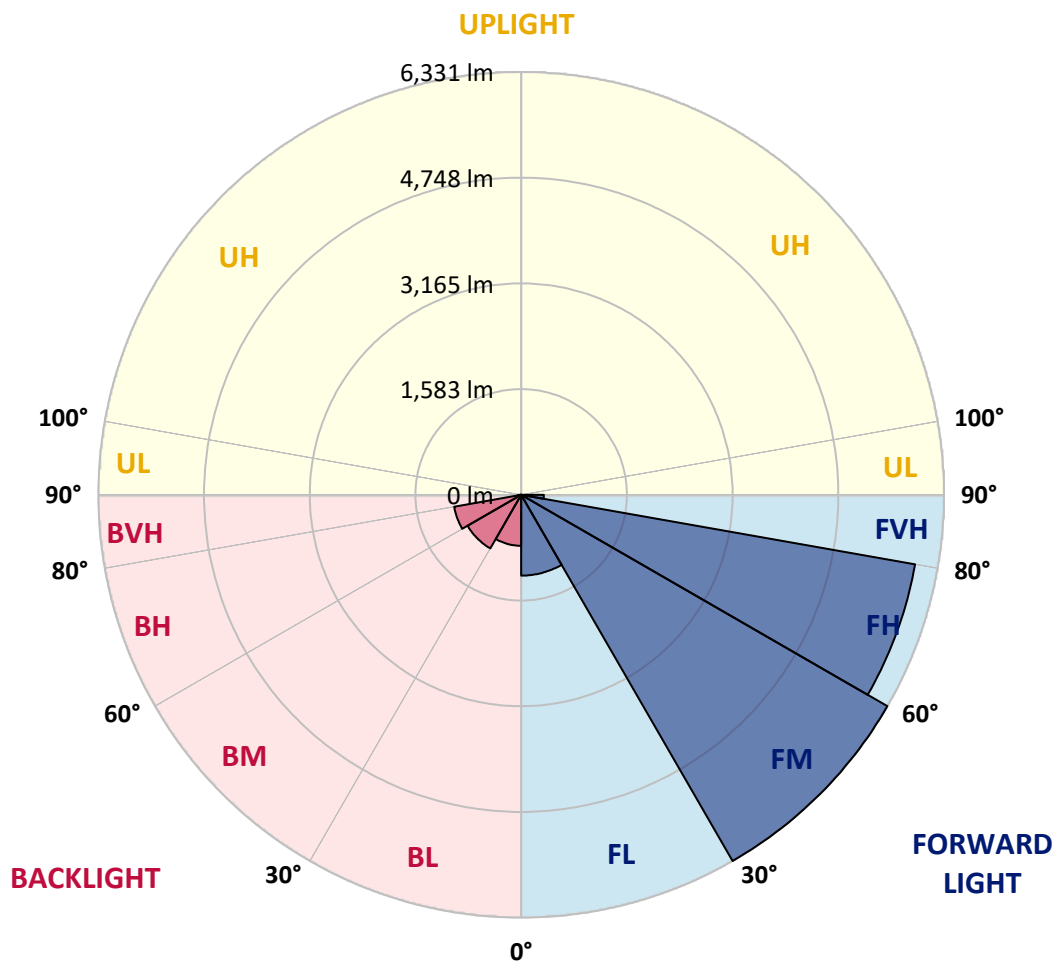
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1209.8	7.3			
FM (30°-60°)	6330.6	38.1			
FH (60°-80°)	5989.1	36.0			G3/7500
FVH (80°-90°)	339.7	2.0			G3/500
BL (0°-30°)	763.4	4.6	B2/1000		
BM (30°-60°)	925.5	5.6	B1/1000		
BH (60°-80°)	1018.7	6.1	B3/2500		G3/2500
BVH (80°-90°)	46.6	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3585.6	3585.6	3585.6	3585.6	3585.6	3585.6	3585.6	3585.6	3585.6	3585.6	3585.6
2.5°	3438.1	3443.8	3461.9	3473.3	3525.0	3547.1	3562.7	3578.3	3580.7	3588.1	3580.7
5°	3077.4	3089.7	3123.3	3161.0	3261.0	3339.7	3422.5	3508.6	3524.2	3579.9	3595.5
7.5°	2797.9	2794.6	2822.4	2867.5	2970.0	3079.0	3224.1	3395.5	3429.1	3554.5	3615.2
10°	2593.7	2591.3	2620.8	2667.5	2765.1	2868.3	3032.3	3266.8	3314.3	3514.3	3634.0
12.5°	2442.9	2443.7	2473.2	2524.9	2624.1	2728.2	2894.6	3142.2	3202.8	3467.6	3653.7
15°	2342.9	2349.4	2373.2	2428.1	2524.9	2629.0	2792.1	3048.7	3116.7	3430.7	3675.8
17.5°	2309.3	2319.9	2328.1	2368.3	2451.1	2555.2	2715.1	2979.8	3052.0	3405.3	3695.5
20°	2340.4	2352.7	2337.1	2351.1	2403.5	2495.4	2654.4	2925.7	2999.5	3376.6	3697.9
22.5°	2474.0	2485.5	2439.6	2399.4	2396.2	2451.9	2604.4	2883.1	2959.3	3355.3	3698.8
25°	2709.3	2716.7	2639.6	2546.2	2455.2	2436.3	2569.1	2853.6	2934.8	3336.4	3683.2
27.5°	2997.9	3003.6	2915.1	2777.4	2594.5	2473.2	2556.8	2836.4	2920.8	3320.0	3657.0
30°	3348.7	3375.8	3256.9	3083.1	2816.7	2582.3	2581.4	2827.4	2905.2	3292.2	3605.3
32.5°	3707.8	3719.3	3637.3	3461.0	3115.9	2774.1	2650.3	2833.9	2901.1	3258.6	3539.7
35°	4071.8	4086.5	4033.2	3891.4	3525.0	3055.3	2784.7	2872.4	2926.6	3247.1	3493.8
37.5°	4543.1	4562.8	4489.0	4325.1	4022.6	3436.4	3008.5	2969.2	3004.4	3279.9	3479.9
40°	5288.3	5279.3	5063.7	4819.4	4566.9	3924.2	3328.2	3133.1	3153.6	3385.6	3522.5
42.5°	6155.6	6133.5	5762.1	5378.5	5165.3	4514.4	3751.2	3417.6	3413.5	3593.8	3672.5
45°	6847.5	6829.4	6495.0	6022.0	5851.5	5186.6	4298.0	3841.4	3811.1	3924.2	3949.6
47.5°	7222.1	7222.9	7030.3	6644.2	6640.1	6040.8	5000.6	4454.6	4402.1	4455.4	4428.4
50°	7090.9	7108.2	7087.7	6964.7	7359.8	7160.6	5917.9	5309.6	5203.9	5256.3	5152.2
52.5°	6456.5	6478.6	6599.9	6788.5	7662.3	8514.1	7265.6	6372.0	6249.1	6230.2	6114.6
55°	5331.7	5358.8	5606.4	6118.7	7410.7	9423.2	9392.0	7726.3	7530.3	7352.5	7303.3
57.5°	3675.0	3720.1	4118.5	4879.2	6596.6	9697.8	11924.3	9656.8	9258.4	8637.0	8648.5
60°	2071.5	2124.0	2593.7	3284.8	4953.8	9399.4	13850.7	12580.9	11739.8	10141.3	10226.5
62.5°	1317.4	1373.9	1730.5	2282.2	2972.5	7792.7	14640.1	16646.1	15578.0	11995.6	12079.2
65°	1066.5	1091.1	1259.2	1883.8	2158.4	4694.8	14040.9	19994.8	19596.4	14349.1	13958.9
67.5°	1041.1	1049.3	1136.2	1581.3	2069.9	2638.8	11199.6	20621.1	21063.0	16546.9	14741.8
70°	1028.8	1057.5	1280.5	1509.2	1982.2	2225.7	6730.3	18904.5	19602.2	17121.6	13699.9
72.5°	499.2	497.6	644.3	1364.9	2233.0	2308.5	3457.8	15296.0	15996.0	14833.6	11257.8
75°	402.5	368.1	351.7	500.1	2147.0	2383.9	2203.5	10524.9	11031.5	9945.4	6920.4
77.5°	382.0	341.0	312.3	313.1	907.5	2528.1	1866.6	5825.2	5972.8	4492.3	1896.1
80°	316.4	278.7	258.2	291.0	439.4	2407.6	2018.3	2636.4	2419.1	1103.4	631.2
82.5°	219.7	200.0	194.3	244.3	351.7	1715.8	2347.0	1416.6	1187.8	552.5	389.4
85°	140.2	119.7	132.8	177.9	273.8	791.9	2417.5	1104.2	878.0	350.9	219.7
87.5°	64.8	52.5	65.6	98.4	178.7	273.0	2300.3	1240.3	904.2	185.3	138.5
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°	3585.6	3585.6	3585.6	3585.6	3585.6	3585.6	3585.6	3585.6	3585.6	3585.6	3585.6
2.5°	3587.3	3571.7	3559.4	3536.5	3511.0	3486.5	3464.3	3436.4	3428.2	3420.9	3432.3
5°	3598.8	3583.2	3538.1	3467.6	3389.7	3316.8	3243.8	3181.5	3143.0	3121.7	3134.0
7.5°	3616.0	3593.8	3500.4	3370.9	3230.7	3102.8	2970.8	2865.1	2787.2	2750.3	2761.0
10°	3631.5	3588.9	3436.4	3242.2	3037.2	2847.0	2638.8	2466.7	2338.8	2271.6	2288.0
12.5°	3638.1	3570.1	3347.1	3081.5	2800.3	2521.6	2215.0	1957.6	1774.0	1706.7	1692.8
15°	3644.7	3548.8	3248.7	2898.7	2514.2	2119.9	1690.4	1382.1	1229.6	1196.0	1188.7
17.5°	3646.3	3511.9	3137.2	2700.3	2178.9	1642.0	1155.9	959.9	960.8	1014.9	1021.4
20°	3629.1	3456.9	3002.0	2453.5	1777.2	1135.4	793.5	759.9	883.7	1019.0	1035.4
22.5°	3589.7	3384.0	2848.7	2165.8	1317.4	747.6	614.0	650.9	810.7	976.3	995.2
25°	3539.7	3295.4	2667.5	1832.2	872.2	534.5	514.8	559.9	668.1	778.8	789.4
27.5°	3471.7	3190.5	2464.2	1450.2	566.5	440.2	453.3	483.7	527.9	577.1	582.0
30°	3384.0	3065.1	2247.0	1057.5	427.9	395.9	414.8	431.2	450.0	477.9	480.4
32.5°	3283.1	2944.6	2024.0	730.4	379.6	373.0	387.7	395.9	410.7	427.9	429.6
35°	3198.7	2829.8	1792.8	516.5	359.1	355.8	365.6	368.9	382.8	401.7	403.3
37.5°	3150.3	2736.4	1554.3	416.4	345.1	340.2	345.9	345.9	365.6	393.5	397.6
40°	3153.6	2684.7	1315.7	376.3	333.6	327.1	327.9	327.9	353.3	383.6	386.1
42.5°	3243.0	2697.8	1104.2	360.7	324.6	317.2	313.1	315.6	336.9	356.6	358.2
45°	3452.8	2790.5	905.8	350.9	315.6	313.1	304.1	303.3	311.5	320.5	320.5
47.5°	3797.1	2973.3	771.4	344.3	308.2	307.4	296.8	286.1	285.3	288.6	288.6
50°	4357.0	3288.1	681.2	336.9	303.3	296.8	284.5	268.1	262.3	264.8	264.8
52.5°	5196.5	3849.6	646.8	327.1	292.7	282.0	268.1	251.7	246.7	247.6	247.6
55°	6297.4	4712.0	641.9	315.6	281.2	264.0	252.5	240.2	234.5	236.1	236.1
57.5°	7642.6	5904.8	729.6	297.6	265.6	245.9	239.4	231.2	227.1	229.5	228.7
60°	9278.1	7465.6	1082.1	278.7	250.0	229.5	229.5	223.0	219.7	222.2	221.3
62.5°	11161.9	9258.4	1521.5	264.8	233.6	216.4	219.7	216.4	213.1	214.8	214.0
65°	12832.6	10426.6	1424.7	254.1	217.2	204.1	209.9	208.2	205.8	207.4	206.6
67.5°	12880.9	9993.7	800.1	242.6	201.7	191.8	200.0	199.2	197.6	199.2	198.4
70°	11495.5	8438.6	450.9	221.3	185.3	177.1	188.5	187.7	186.1	189.4	188.5
72.5°	9210.0	6123.6	329.5	195.1	168.9	161.5	174.6	173.8	173.8	178.7	176.2
75°	5299.8	3151.2	263.1	167.2	151.7	145.9	157.4	158.2	159.9	166.4	161.5
77.5°	1510.8	982.1	214.8	141.8	130.3	127.9	139.4	141.0	141.8	149.2	142.6
80°	561.5	452.5	177.1	118.9	106.6	107.4	118.0	120.5	121.3	128.7	120.5
82.5°	358.2	298.4	143.5	91.8	83.6	82.8	95.9	99.2	99.2	100.0	95.1
85°	209.0	178.7	108.2	66.4	59.0	56.6	71.3	77.1	74.6	73.0	69.7
87.5°	140.2	123.0	66.4	36.9	32.0	30.3	41.8	45.9	44.3	41.8	39.3
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)