

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: P299173

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299173
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-SL2-7027-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16453.6 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

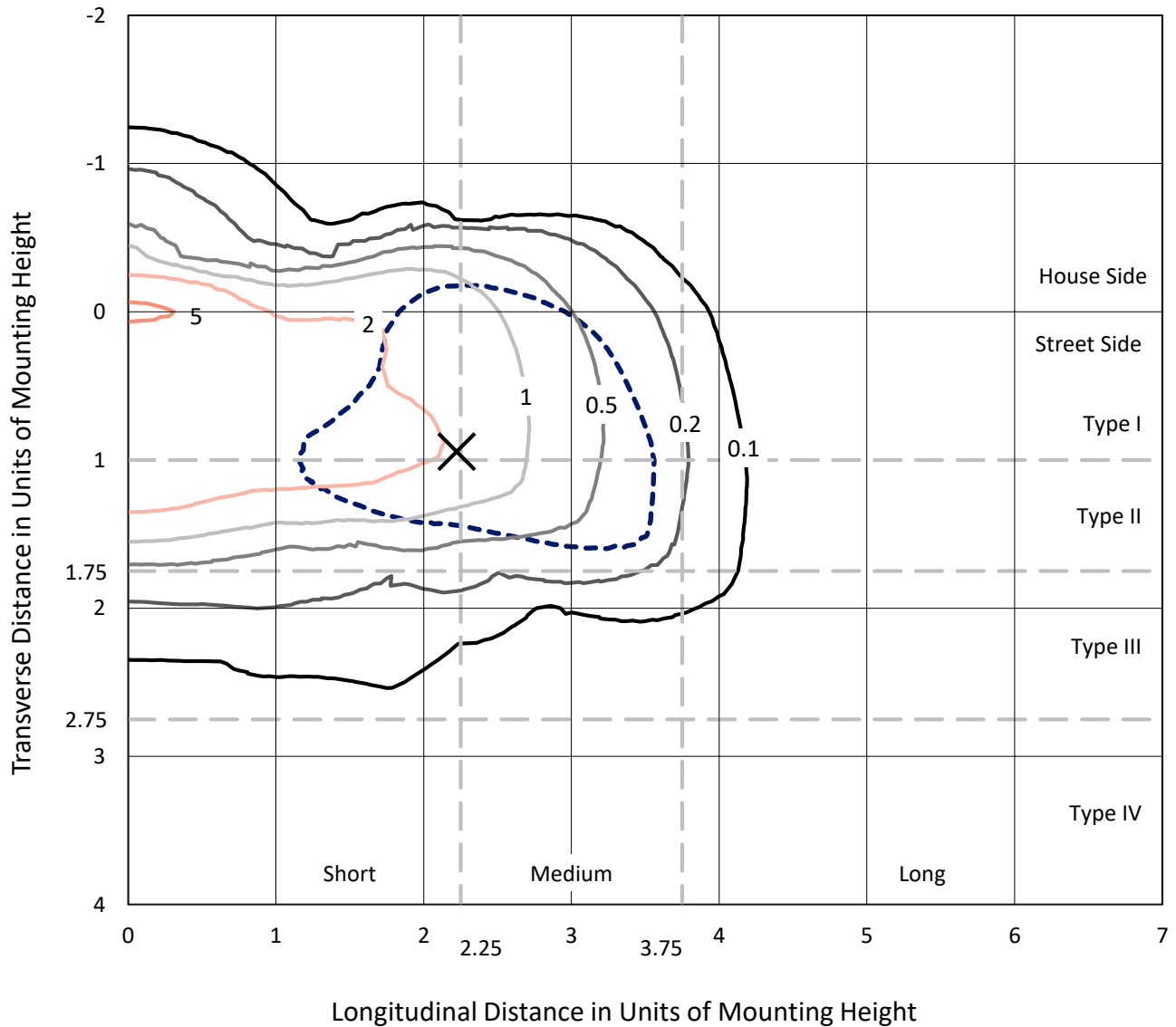
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P299173
 CATALOG NUMBER: GLNA-AF-04-LED-E1-SL2-7027-800

Iso-Footcandle Lines of Horizontal Illumination

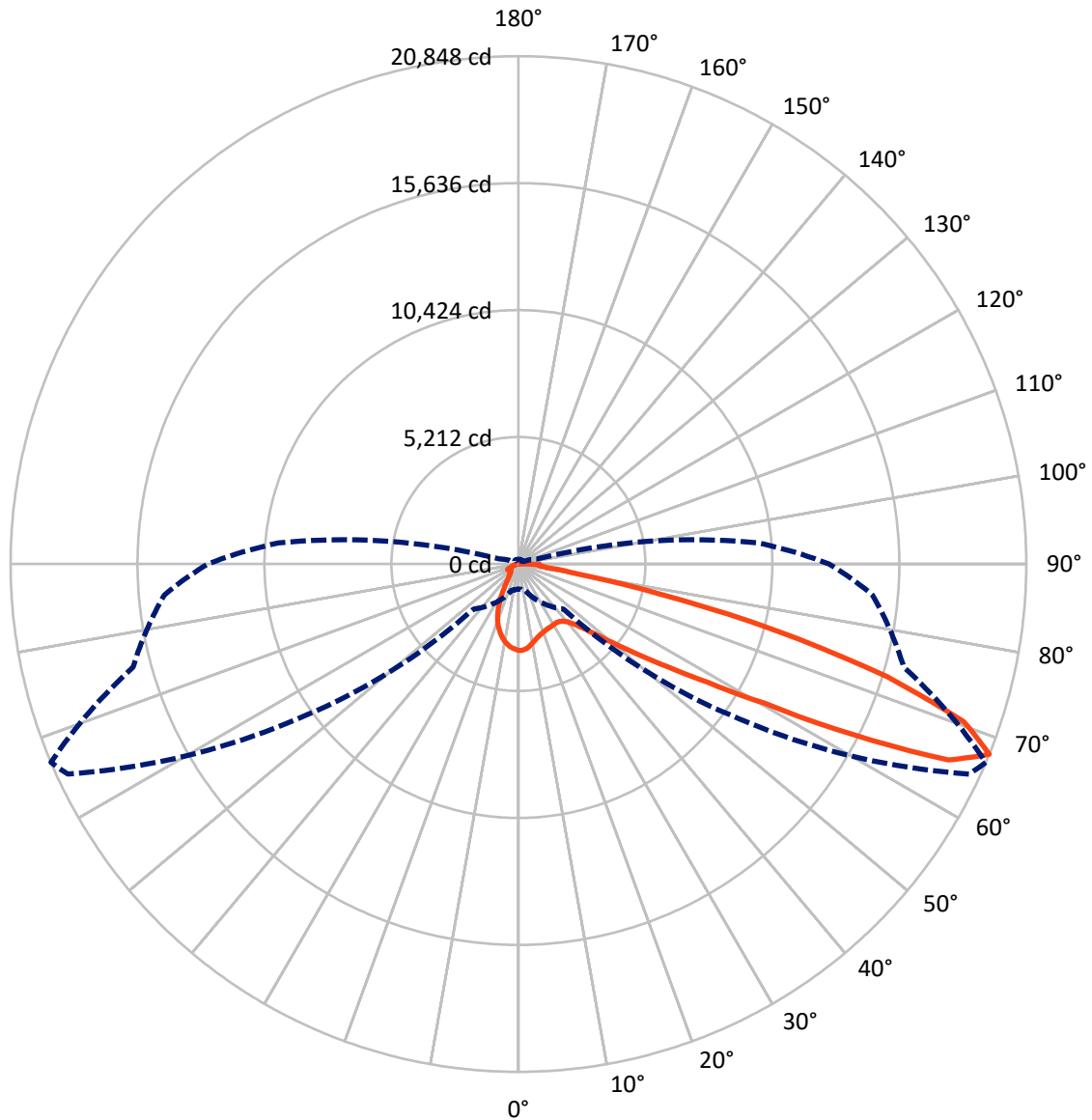
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P299173
CATALOG NUMBER: GLNA-AF-04-LED-E1-SL2-7027-800

Luminous Intensity Polar Plot



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

REPORT NUMBER: P299173

CATALOG NUMBER: GLNA-AF-04-LED-E1-SL2-7027-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2726.2	0.0	2726.2
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	13727.4	0.0	13727.4
	% Fixture	83.4	0.0	83.4
Total	Lumens	16453.6	0.0	16453.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	302.8	1.8
10°-20°	700.6	4.3
20°-30°	949.7	5.8
30°-40°	1350.1	8.2
40°-50°	2258.7	13.7
50°-60°	3573.2	21.7
60°-70°	4551.9	27.7
70°-80°	2384.3	14.5
80°-90°	382.4	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°	16453.6	100.0
0°-180°	16453.6	100.0

Coefficient of Utilization



REPORT NUMBER: P299173

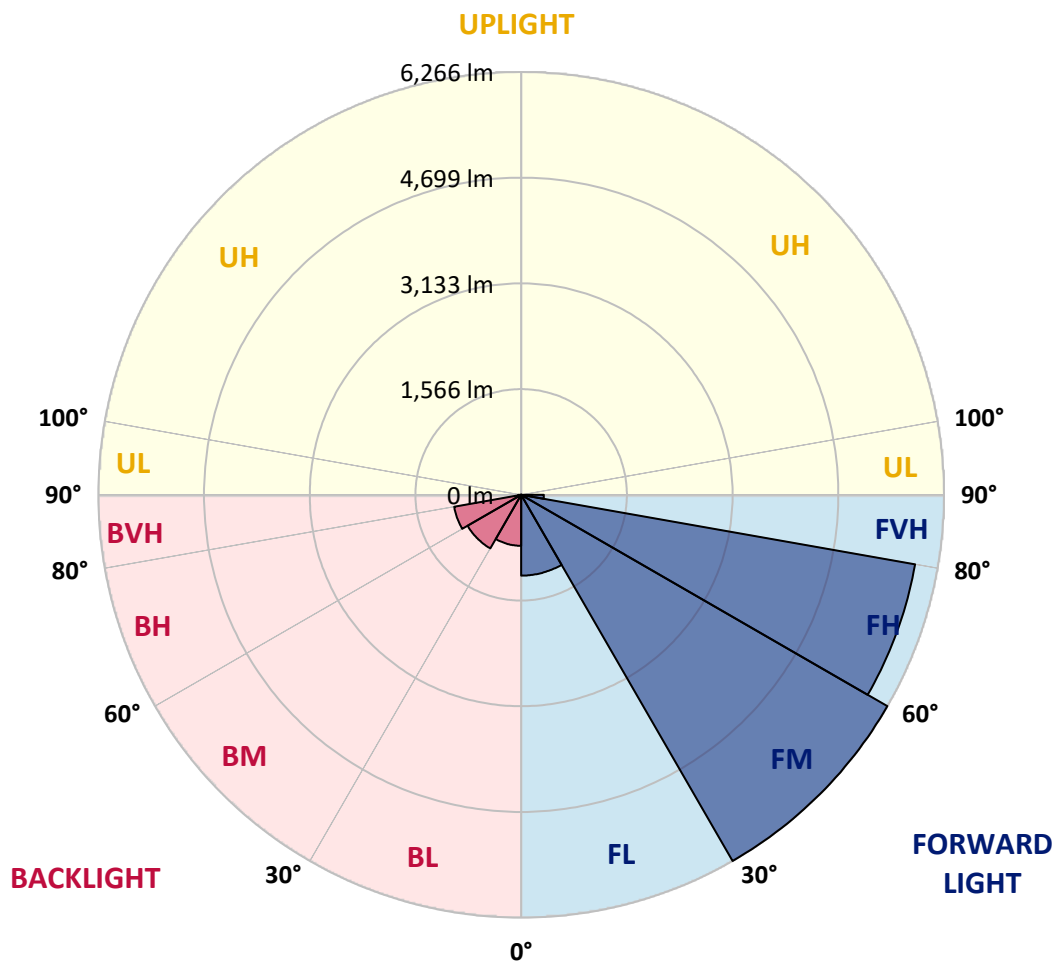
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1197.4	7.3			
FM (30°-60°)	6265.9	38.1			
FH (60°-80°)	5927.9	36.0			G3/7500
FVH (80°-90°)	336.2	2.0			G3/500
BL (0°-30°)	755.6	4.6	B2/1000		
BM (30°-60°)	916.1	5.6	B1/1000		
BH (60°-80°)	1008.3	6.1	B3/2500		G3/2500
BVH (80°-90°)	46.2	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





REPORT NUMBER: P299173

CATALOG NUMBER: GLNA-AF-04-LED-E1-SL2-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3549.0	3549.0	3549.0	3549.0	3549.0	3549.0	3549.0	3549.0	3549.0	3549.0	3549.0
2.5°	3403.0	3408.6	3426.5	3437.8	3489.0	3510.9	3526.3	3541.7	3544.1	3551.4	3544.1
5°	3045.9	3058.1	3091.4	3128.7	3227.7	3305.6	3387.5	3472.7	3488.2	3543.3	3558.7
7.5°	2769.3	2766.0	2793.6	2838.2	2939.7	3047.6	3191.2	3360.8	3394.0	3518.2	3578.2
10°	2567.2	2564.8	2594.0	2640.3	2736.8	2839.0	3001.3	3233.4	3280.4	3478.4	3596.9
12.5°	2417.9	2418.7	2448.0	2499.1	2597.2	2700.3	2865.0	3110.0	3170.1	3432.2	3616.4
15°	2318.9	2325.4	2349.0	2403.3	2499.1	2602.1	2763.6	3017.5	3084.9	3395.7	3638.3
17.5°	2285.7	2296.2	2304.3	2344.1	2426.0	2529.1	2687.3	2949.4	3020.8	3370.5	3657.7
20°	2316.5	2328.7	2313.3	2327.1	2379.0	2469.9	2627.3	2895.8	2968.9	3342.1	3660.2
22.5°	2448.8	2460.1	2414.7	2374.9	2371.7	2426.9	2577.8	2853.6	2929.1	3321.0	3661.0
25°	2681.6	2688.9	2612.7	2520.2	2430.1	2411.4	2542.9	2824.4	2904.8	3302.3	3645.6
27.5°	2967.2	2972.9	2885.3	2749.0	2568.0	2448.0	2530.7	2807.4	2891.0	3286.1	3619.6
30°	3314.5	3341.3	3223.6	3051.6	2787.9	2555.9	2555.1	2798.5	2875.6	3258.5	3568.5
32.5°	3669.9	3681.3	3600.1	3425.7	3084.1	2745.7	2623.2	2805.0	2871.5	3225.3	3503.6
35°	4030.2	4044.8	3992.0	3851.7	3489.0	3024.0	2756.3	2843.1	2896.7	3213.9	3458.1
37.5°	4496.7	4516.2	4443.2	4280.9	3981.5	3401.3	2977.8	2938.8	2973.7	3246.4	3444.3
40°	5234.3	5225.3	5011.9	4770.1	4520.2	3884.1	3294.2	3101.1	3121.4	3351.0	3486.5
42.5°	6092.7	6070.8	5703.2	5323.5	5112.5	4468.3	3712.9	3382.7	3378.6	3557.1	3635.0
45°	6777.5	6759.7	6428.6	5960.4	5791.7	5133.6	4254.1	3802.2	3772.1	3884.1	3909.3
47.5°	7148.3	7149.1	6958.5	6576.3	6572.2	5979.1	4949.5	4409.1	4357.1	4409.9	4383.1
50°	7018.5	7035.5	7015.2	6893.5	7284.6	7087.5	5857.4	5255.4	5150.7	5202.6	5099.6
52.5°	6390.5	6412.4	6532.5	6719.1	7584.0	8427.1	7191.3	6306.9	6185.2	6166.5	6052.1
55°	5277.3	5304.0	5549.1	6056.2	7334.9	9326.9	9296.1	7647.3	7453.4	7277.3	7228.6
57.5°	3637.4	3682.1	4076.4	4829.4	6529.2	9598.7	11802.4	9558.1	9163.8	8548.8	8560.1
60°	2050.4	2102.3	2567.2	3251.2	4903.2	9303.4	13709.2	12452.4	11619.9	10037.7	10122.0
62.5°	1303.9	1359.9	1712.8	2258.9	2942.1	7713.0	14490.6	16476.0	15418.8	11873.0	11955.8
65°	1055.6	1080.0	1246.3	1864.6	2136.4	4646.8	13897.4	19790.5	19396.2	14202.5	13816.3
67.5°	1030.5	1038.6	1124.6	1565.2	2048.8	2611.9	11085.2	20410.4	20847.8	16377.8	14591.2
70°	1018.3	1046.7	1267.4	1493.8	1961.9	2202.9	6661.5	18711.4	19401.9	16946.6	13559.9
72.5°	494.1	492.5	637.7	1351.0	2210.2	2284.9	3422.4	15139.7	15832.6	14682.0	11142.8
75°	398.4	364.3	348.1	494.9	2125.0	2359.5	2181.0	10417.4	10918.8	9843.7	6849.7
77.5°	378.1	337.5	309.1	309.9	898.2	2502.3	1847.5	5765.7	5911.8	4446.4	1876.7
80°	313.2	275.9	255.6	288.0	434.9	2383.0	1997.6	2609.4	2394.4	1092.1	624.8
82.5°	217.5	198.0	192.3	241.8	348.1	1698.2	2323.0	1402.1	1175.7	546.9	385.4
85°	138.7	118.5	131.4	176.1	271.0	783.8	2392.8	1092.9	869.0	347.3	217.5
87.5°	64.1	51.9	64.9	97.4	176.9	270.2	2276.8	1227.6	895.0	183.4	137.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299173

CATALOG NUMBER: GLNA-AF-04-LED-E1-SL2-7027-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3549.0	3549.0	3549.0	3549.0	3549.0	3549.0	3549.0	3549.0	3549.0	3549.0	3549.0
2.5°	3550.6	3535.2	3523.0	3500.3	3475.2	3450.8	3428.9	3401.3	3393.2	3385.9	3397.3
5°	3562.0	3546.6	3501.9	3432.2	3355.1	3282.9	3210.7	3149.0	3110.9	3089.8	3101.9
7.5°	3579.0	3557.1	3464.6	3336.4	3197.7	3071.1	2940.5	2835.8	2758.7	2722.2	2732.8
10°	3594.4	3552.3	3401.3	3209.0	3006.2	2817.9	2611.9	2441.5	2314.9	2248.4	2264.6
12.5°	3600.9	3533.6	3312.9	3050.0	2771.7	2495.8	2192.4	1937.6	1755.8	1689.3	1675.5
15°	3607.4	3512.5	3215.5	2869.1	2488.5	2098.2	1673.1	1368.0	1217.1	1183.8	1176.5
17.5°	3609.0	3476.0	3105.2	2672.7	2156.7	1625.2	1144.1	950.1	950.9	1004.5	1011.0
20°	3592.0	3421.6	2971.3	2428.5	1759.1	1123.8	785.4	752.2	874.7	1008.6	1024.8
22.5°	3553.1	3349.4	2819.6	2143.7	1303.9	740.0	607.7	644.2	802.5	966.4	985.0
25°	3503.6	3261.8	2640.3	1813.4	863.3	529.0	509.6	554.2	661.3	770.8	781.4
27.5°	3436.2	3157.9	2439.0	1435.3	560.7	435.7	448.7	478.7	522.5	571.2	576.1
30°	3349.4	3033.8	2224.0	1046.7	423.5	391.9	410.6	426.8	445.5	473.0	475.5
32.5°	3249.6	2914.5	2003.3	722.9	375.7	369.2	383.8	391.9	406.5	423.5	425.2
35°	3166.0	2800.9	1774.5	511.2	355.4	352.1	361.9	365.1	378.9	397.6	399.2
37.5°	3118.2	2708.4	1538.4	412.2	341.6	336.7	342.4	342.4	361.9	389.5	393.5
40°	3121.4	2657.3	1302.3	372.4	330.2	323.7	324.6	324.6	349.7	379.7	382.2
42.5°	3209.8	2670.3	1092.9	357.0	321.3	314.0	309.9	312.4	333.5	353.0	354.6
45°	3417.6	2762.0	896.6	347.3	312.4	309.9	301.0	300.2	308.3	317.3	317.3
47.5°	3758.3	2942.9	763.5	340.8	305.1	304.3	293.7	283.2	282.4	285.6	285.6
50°	4312.5	3254.5	674.3	333.5	300.2	293.7	281.6	265.3	259.6	262.1	262.1
52.5°	5143.4	3810.3	640.2	323.7	289.7	279.1	265.3	249.1	244.2	245.0	245.0
55°	6233.1	4663.9	635.3	312.4	278.3	261.3	249.9	237.7	232.1	233.7	233.7
57.5°	7564.6	5844.4	722.1	294.5	262.9	243.4	236.9	228.8	224.8	227.2	226.4
60°	9183.3	7389.3	1071.0	275.9	247.5	227.2	227.2	220.7	217.5	219.9	219.1
62.5°	11047.8	9163.8	1505.9	262.1	231.2	214.2	217.5	214.2	211.0	212.6	211.8
65°	12701.4	10320.0	1410.2	251.5	215.0	202.0	207.7	206.1	203.7	205.3	204.5
67.5°	12749.3	9891.6	791.9	240.2	199.6	189.9	198.0	197.2	195.5	197.2	196.4
70°	11378.1	8352.4	446.3	219.1	183.4	175.3	186.6	185.8	184.2	187.4	186.6
72.5°	9115.9	6061.1	326.2	193.1	167.1	159.8	172.8	172.0	172.0	176.9	174.4
75°	5245.6	3119.0	260.5	165.5	150.1	144.4	155.8	156.6	158.2	164.7	159.8
77.5°	1495.4	972.0	212.6	140.4	129.0	126.6	137.9	139.6	140.4	147.7	141.2
80°	555.8	447.9	175.3	117.7	105.5	106.3	116.8	119.3	120.1	127.4	119.3
82.5°	354.6	295.3	142.0	90.9	82.8	82.0	94.9	98.2	98.2	99.0	94.1
85°	206.9	176.9	107.1	65.7	58.4	56.0	70.6	76.3	73.8	72.2	69.0
87.5°	138.7	121.7	65.7	36.5	31.6	30.0	41.4	45.4	43.8	41.4	38.9
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)