

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: P299107

Luminaire Tested: **GLNA-AF-03-LED-E1-SL2-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299107  
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-03-LED-E1-SL2-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Narrow OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15413.7 lumens  
Efficiency: N/A  
Efficacy: 92.9 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

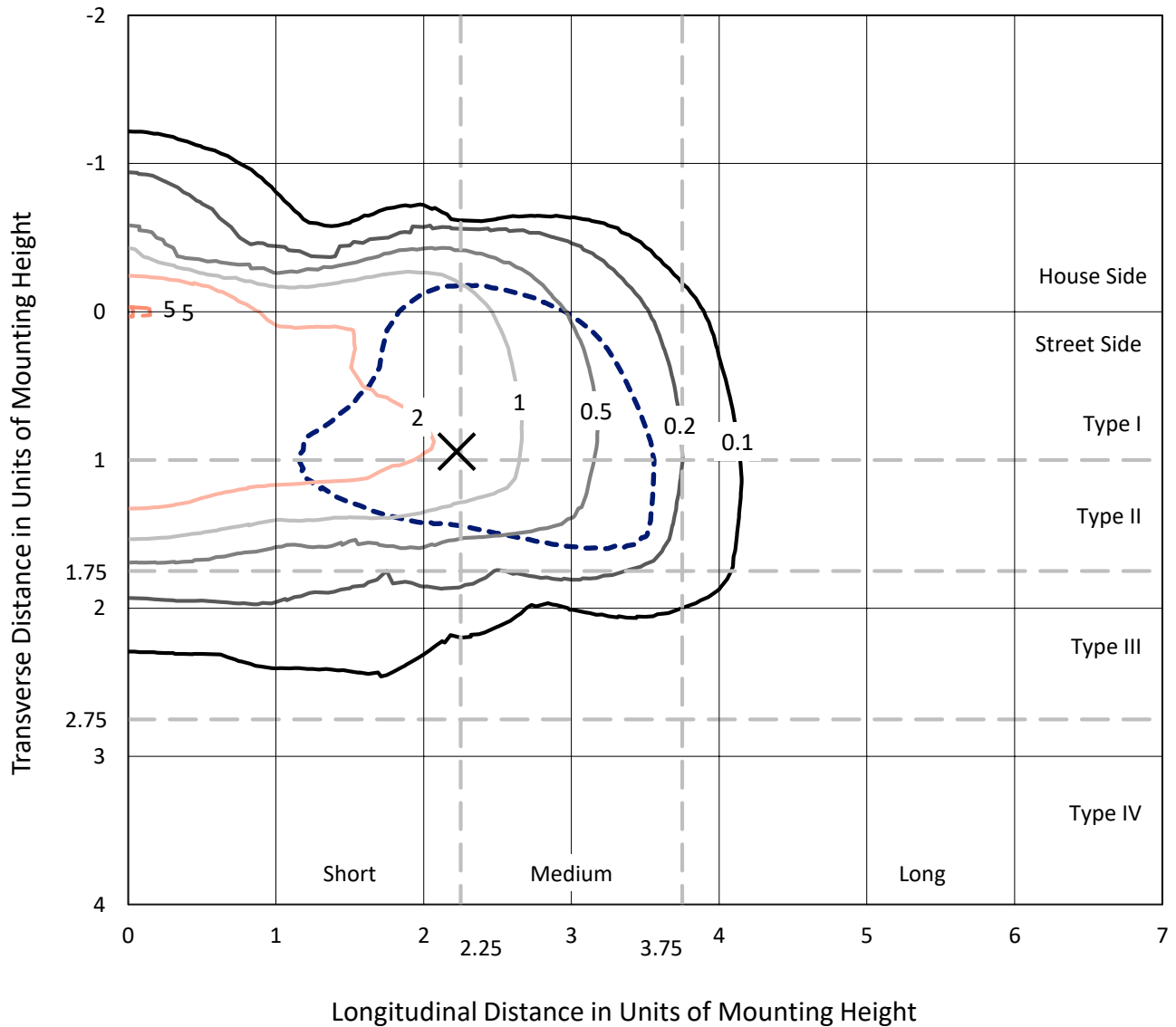
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

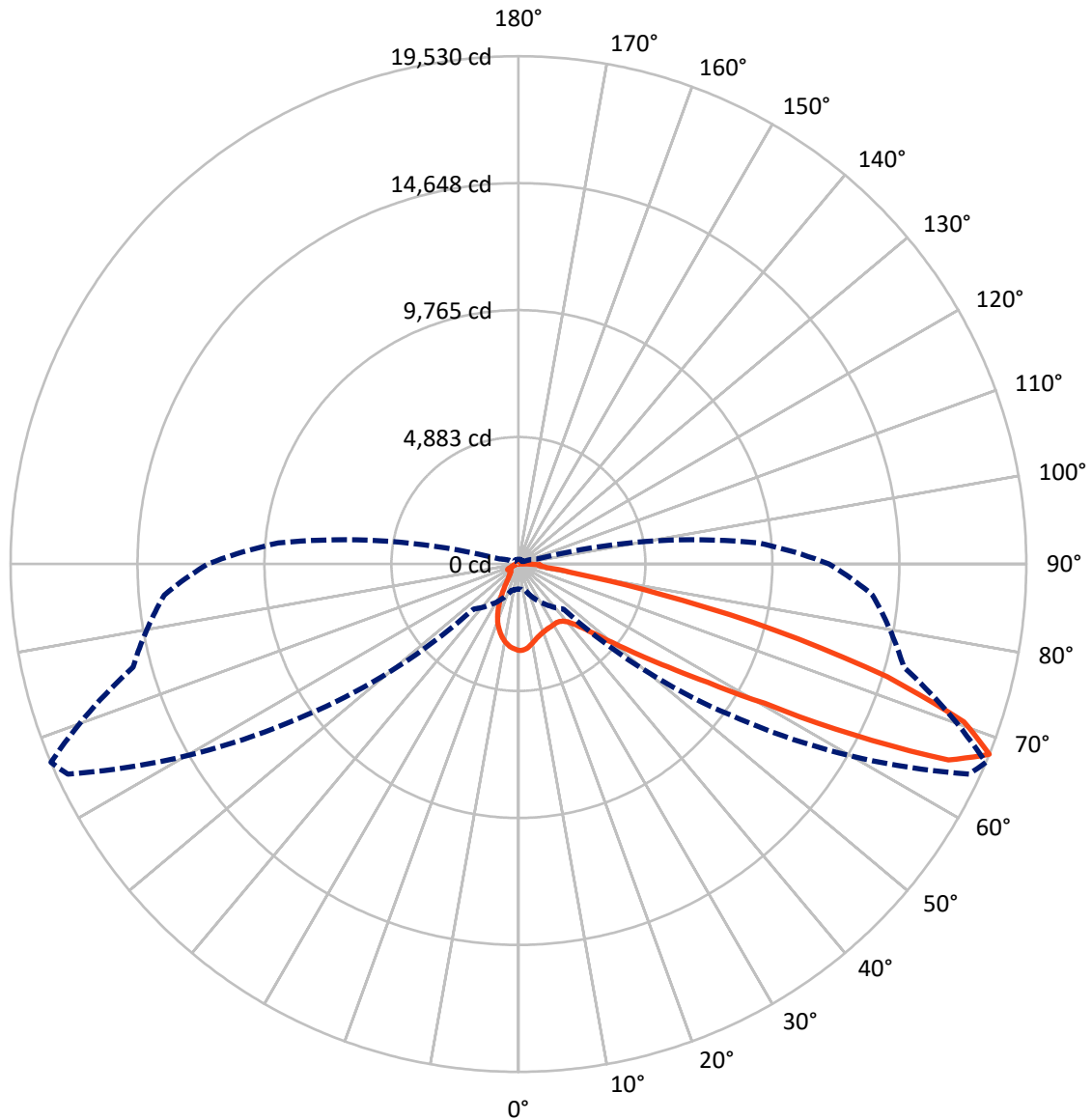
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 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
<b>House Side</b>	Lumens	2553.9	0.0	2553.9
	% Fixture	16.6	0.0	16.6
<b>Street Side</b>	Lumens	12859.8	0.0	12859.8
	% Fixture	83.4	0.0	83.4
<b>Total</b>	Lumens	15413.7	0.0	15413.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	283.6	1.8
10°-20°	656.3	4.3
20°-30°	889.6	5.8
30°-40°	1264.7	8.2
40°-50°	2115.9	13.7
50°-60°	3347.4	21.7
60°-70°	4264.2	27.7
70°-80°	2233.6	14.5
80°-90°	358.2	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°	15413.7	100.0
0°-180°	15413.7	100.0



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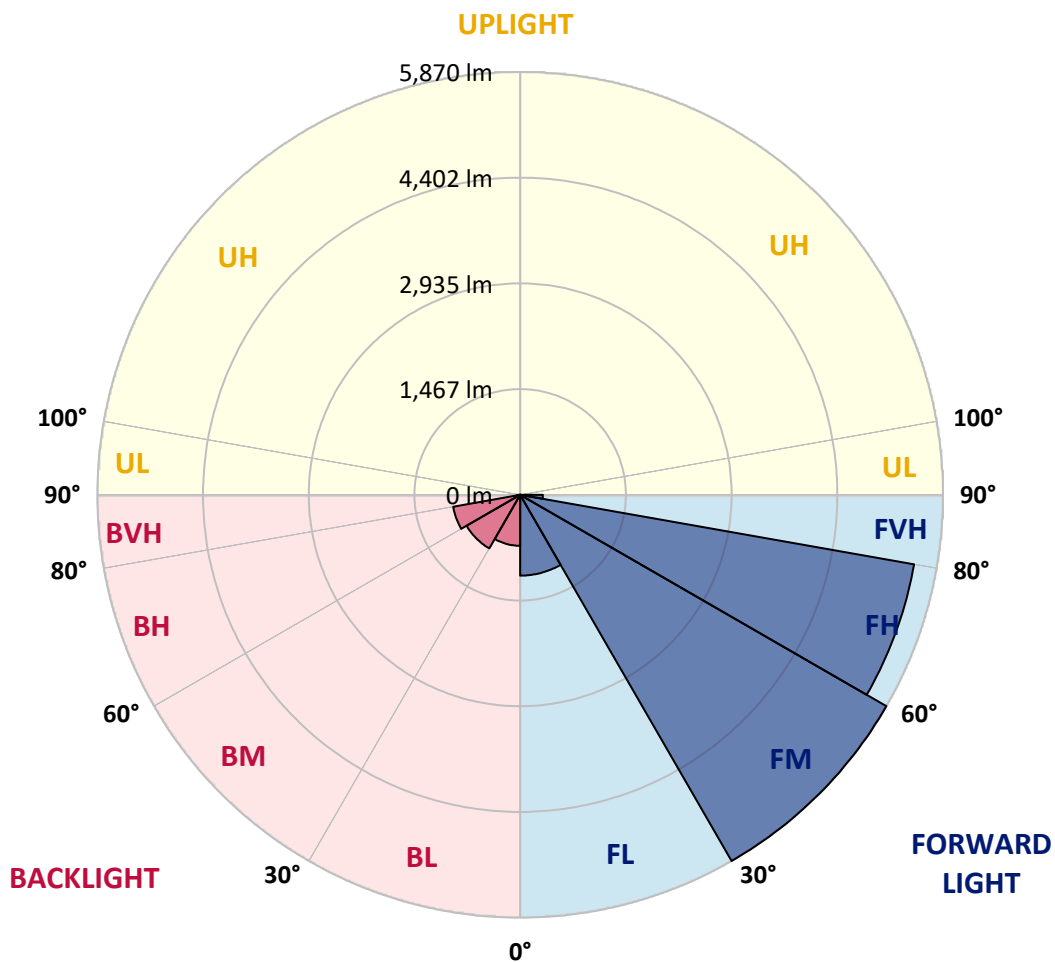
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1121.7	7.3			
FM	(30°-60°)	5869.9	38.1			
FH	(60°-80°)	5553.2	36.0			G3/7500
FVH	(80°-90°)	315.0	2.0			G3/500
BL	(0°-30°)	707.9	4.6	B2/1000		
BM	(30°-60°)	858.2	5.6	B1/1000		
BH	(60°-80°)	944.6	6.1	B2/1000		G2/1000
BVH	(80°-90°)	43.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: 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°	3324.7	3324.7	3324.7	3324.7	3324.7	3324.7	3324.7	3324.7	3324.7	3324.7	3324.7
2.5°	3187.9	3193.2	3209.9	3220.6	3268.5	3289.0	3303.4	3317.9	3320.1	3327.0	3320.1
5°	2853.4	2864.8	2896.0	2931.0	3023.7	3096.7	3173.4	3253.3	3267.7	3319.4	3333.8
7.5°	2594.2	2591.2	2617.0	2658.9	2753.9	2855.0	2989.5	3148.4	3179.5	3295.8	3352.1
10°	2405.0	2402.7	2430.1	2473.4	2563.8	2659.6	2811.6	3029.0	3073.1	3258.6	3369.6
12.5°	2265.1	2265.9	2293.2	2341.1	2433.1	2529.6	2683.9	2913.5	2969.7	3215.2	3387.8
15°	2172.4	2178.5	2200.5	2251.4	2341.1	2437.7	2588.9	2826.8	2889.9	3181.0	3408.3
17.5°	2141.2	2151.1	2158.7	2195.9	2272.7	2369.3	2517.5	2763.0	2829.9	3157.5	3426.6
20°	2170.1	2181.5	2167.1	2180.0	2228.6	2313.8	2461.2	2712.8	2781.2	3130.9	3428.8
22.5°	2294.0	2304.6	2262.1	2224.8	2221.8	2273.5	2414.9	2673.3	2744.0	3111.1	3429.6
25°	2512.2	2519.0	2447.5	2360.9	2276.5	2259.0	2382.2	2645.9	2721.2	3093.6	3415.2
27.5°	2779.7	2785.0	2702.9	2575.2	2405.7	2293.2	2370.8	2630.0	2708.3	3078.4	3390.8
30°	3105.0	3130.1	3019.9	2858.8	2611.7	2394.3	2393.6	2621.6	2693.8	3052.6	3342.9
32.5°	3438.0	3448.6	3372.6	3209.2	2889.2	2572.2	2457.4	2627.7	2690.0	3021.4	3282.1
35°	3775.4	3789.1	3739.7	3608.2	3268.5	2832.9	2582.1	2663.4	2713.6	3010.8	3239.6
37.5°	4212.5	4230.8	4162.3	4010.3	3729.8	3186.4	2789.6	2753.1	2785.8	3041.2	3226.7
40°	4903.4	4895.1	4695.2	4468.7	4234.6	3638.6	3086.0	2905.1	2924.1	3139.2	3266.2
42.5°	5707.6	5687.1	5342.8	4987.1	4789.4	4185.9	3478.2	3168.9	3165.1	3332.3	3405.3
45°	6349.2	6332.4	6022.3	5583.7	5425.6	4809.2	3985.2	3561.9	3533.7	3638.6	3662.2
47.5°	6696.5	6697.3	6518.7	6160.7	6156.9	5601.2	4636.6	4130.4	4081.8	4131.2	4106.1
50°	6574.9	6590.9	6571.9	6457.9	6824.2	6639.5	5487.2	4923.2	4825.2	4873.8	4777.3
52.5°	5986.6	6007.1	6119.6	6294.4	7104.7	7894.5	6736.8	5908.3	5794.3	5776.8	5669.6
55°	4943.7	4968.8	5198.4	5673.4	6871.4	8737.4	8708.5	7164.0	6982.3	6817.4	6771.8
57.5°	3407.6	3449.4	3818.8	4524.2	6116.6	8992.1	11056.5	8954.1	8584.6	8008.5	8019.1
60°	1920.8	1969.4	2405.0	3045.7	4593.3	8715.4	12842.8	11665.4	10885.5	9403.3	9482.3
62.5°	1221.5	1273.9	1604.6	2116.1	2756.1	7225.6	13574.7	15434.7	14444.3	11122.6	11200.2
65°	988.9	1011.7	1167.5	1746.7	2001.4	4353.1	13019.1	18539.8	18170.3	13304.9	12943.1
67.5°	965.3	972.9	1053.5	1466.2	1919.3	2446.8	10384.6	19120.5	19530.2	15342.7	13669.0
70°	953.9	980.5	1187.3	1399.4	1837.9	2063.7	6240.5	17528.8	18175.7	15875.6	12702.9
72.5°	462.9	461.4	597.4	1265.6	2070.5	2140.5	3206.1	14182.8	14832.0	13754.1	10438.5
75°	373.2	341.3	326.1	463.7	1990.7	2210.4	2043.2	9759.0	10228.8	9221.6	6416.8
77.5°	354.2	316.2	289.6	290.4	841.4	2344.2	1730.8	5401.3	5538.1	4165.4	1758.1
80°	293.4	258.4	239.4	269.8	407.4	2232.4	1871.4	2444.5	2243.1	1023.1	585.3
82.5°	203.7	185.5	180.1	226.5	326.1	1590.9	2176.2	1313.5	1101.4	512.3	361.1
85°	130.0	111.0	123.1	164.9	253.9	734.3	2241.6	1023.9	814.1	325.3	203.7
87.5°	60.0	48.6	60.8	91.2	165.7	253.1	2132.9	1150.0	838.4	171.8	128.5
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°	3324.7	3324.7	3324.7	3324.7	3324.7	3324.7	3324.7	3324.7	3324.7	3324.7	3324.7
2.5°	3326.2	3311.8	3300.4	3279.1	3255.5	3232.7	3212.2	3186.4	3178.8	3171.9	3182.6
5°	3336.9	3322.4	3280.6	3215.2	3143.0	3075.4	3007.7	2950.0	2914.2	2894.5	2905.9
7.5°	3352.8	3332.3	3245.7	3125.6	2995.6	2877.0	2754.6	2656.6	2584.4	2550.2	2560.0
10°	3367.3	3327.7	3186.4	3006.2	2816.2	2639.8	2446.8	2287.2	2168.6	2106.3	2121.5
12.5°	3373.4	3310.3	3103.5	2857.2	2596.5	2338.1	2053.8	1815.1	1644.9	1582.5	1569.6
15°	3379.4	3290.5	3012.3	2687.7	2331.2	1965.6	1567.3	1281.5	1140.2	1109.0	1102.2
17.5°	3381.0	3256.3	2908.9	2503.8	2020.4	1522.5	1071.7	890.1	890.8	941.0	947.1
20°	3365.0	3205.4	2783.5	2275.0	1647.9	1052.7	735.8	704.6	819.4	944.8	960.0
22.5°	3328.5	3137.7	2641.4	2008.2	1221.5	693.2	569.3	603.5	751.7	905.3	922.8
25°	3282.1	3055.6	2473.4	1698.8	808.8	495.6	477.3	519.2	619.5	722.1	732.0
27.5°	3219.1	2958.3	2284.9	1344.6	525.2	408.2	420.3	448.5	489.5	535.1	539.7
30°	3137.7	2842.0	2083.5	980.5	396.8	367.1	384.6	399.8	417.3	443.1	445.4
32.5°	3044.2	2730.3	1876.7	677.3	351.9	345.8	359.5	367.1	380.8	396.8	398.3
35°	2965.9	2623.9	1662.4	478.9	332.9	329.9	339.0	342.0	355.0	372.5	374.0
37.5°	2921.1	2537.2	1441.2	386.1	320.0	315.4	320.8	320.8	339.0	364.9	368.7
40°	2924.1	2489.3	1220.0	348.9	309.4	303.3	304.0	304.0	327.6	355.7	358.0
42.5°	3007.0	2501.5	1023.9	334.4	301.0	294.2	290.4	292.6	312.4	330.6	332.2
45°	3201.6	2587.4	839.9	325.3	292.6	290.4	282.0	281.2	288.8	297.2	297.2
47.5°	3520.8	2756.9	715.3	319.2	285.8	285.0	275.2	265.3	264.5	267.6	267.6
50°	4040.0	3048.8	631.6	312.4	281.2	275.2	263.8	248.6	243.2	245.5	245.5
52.5°	4818.3	3569.5	599.7	303.3	271.4	261.5	248.6	233.4	228.8	229.6	229.6
55°	5839.1	4369.1	595.2	292.6	260.7	244.8	234.1	222.7	217.4	218.9	218.9
57.5°	7086.5	5475.0	676.5	275.9	246.3	228.0	222.0	214.3	210.5	212.8	212.1
60°	8602.9	6922.3	1003.3	258.4	231.8	212.8	212.8	206.7	203.7	206.0	205.2
62.5°	10349.6	8584.6	1410.8	245.5	216.6	200.7	203.7	200.7	197.6	199.1	198.4
65°	11898.7	9667.8	1321.1	235.6	201.4	189.3	194.6	193.1	190.8	192.3	191.5
67.5°	11943.6	9266.5	741.9	225.0	187.0	177.9	185.5	184.7	183.2	184.7	183.9
70°	10659.0	7824.5	418.1	205.2	171.8	164.2	174.8	174.1	172.5	175.6	174.8
72.5°	8539.8	5678.0	305.6	180.9	156.6	149.7	161.9	161.1	161.1	165.7	163.4
75°	4914.1	2921.8	244.0	155.1	140.6	135.3	145.9	146.7	148.2	154.3	149.7
77.5°	1400.9	910.6	199.1	131.5	120.9	118.6	129.2	130.7	131.5	138.3	132.3
80°	520.7	419.6	164.2	110.2	98.8	99.6	109.5	111.7	112.5	119.3	111.7
82.5°	332.2	276.7	133.0	85.1	77.5	76.8	88.9	92.0	92.0	92.7	88.2
85°	193.8	165.7	100.3	61.6	54.7	52.4	66.1	71.4	69.2	67.6	64.6
87.5°	130.0	114.0	61.6	34.2	29.6	28.1	38.8	42.6	41.0	38.8	36.5
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)