

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: P299990

Luminaire Tested: **GLNA-AF-10-LED-E1-5WQ-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299990
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-10-LED-E1-5WQ-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39405.7 lumens
Efficiency: N/A
Efficacy: 122.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G4

Input Watts (W): 323
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

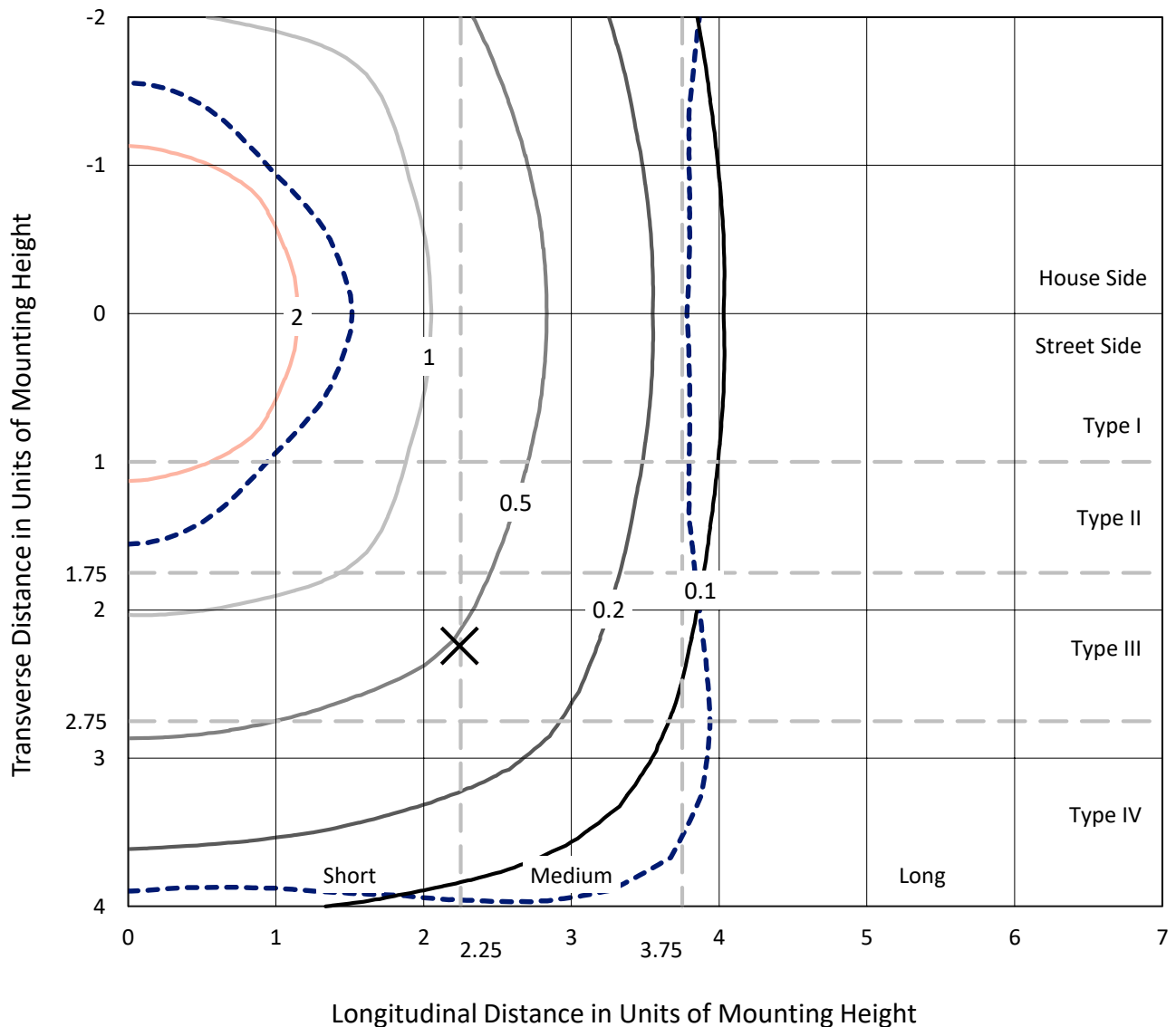


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

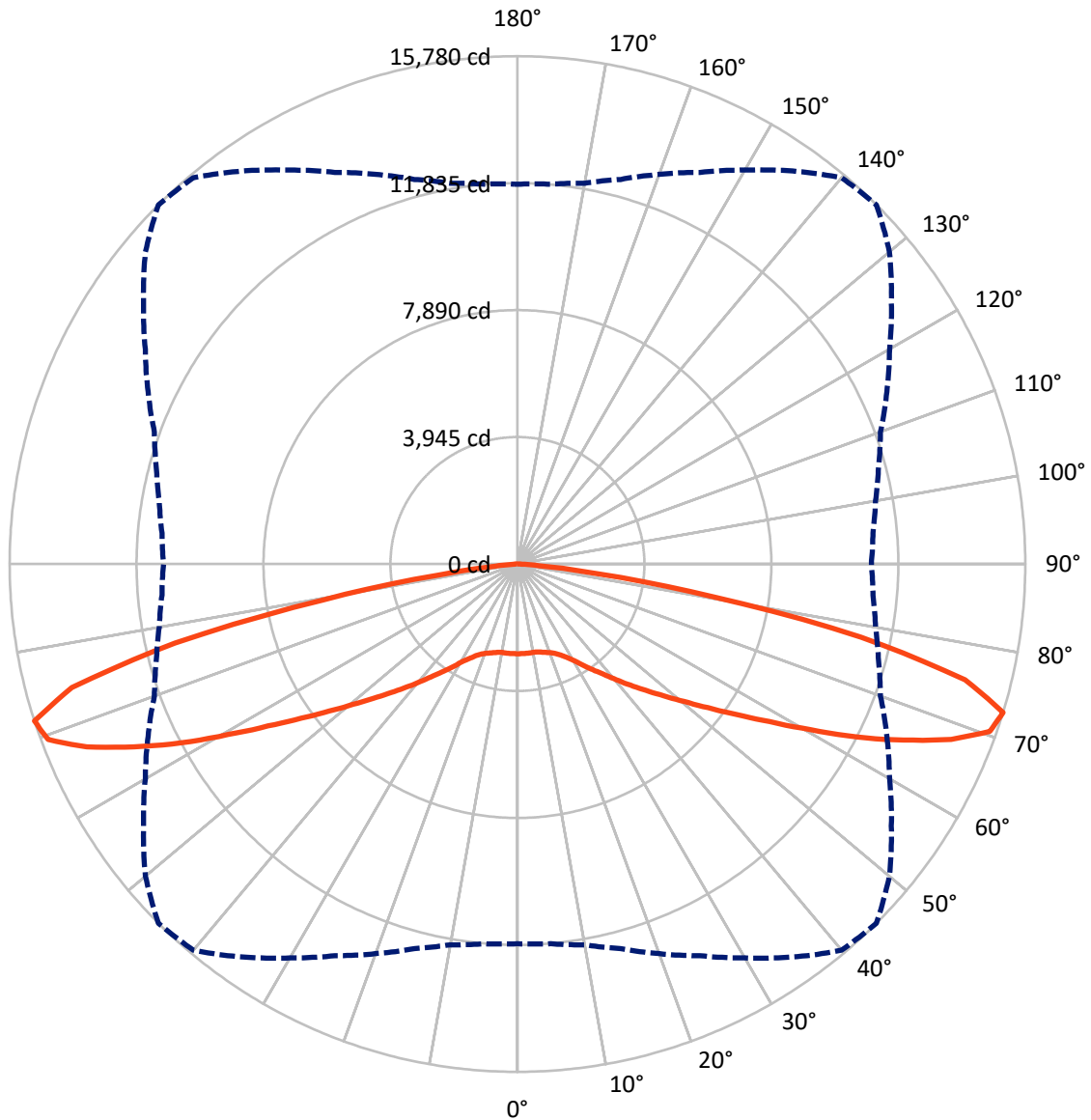


Based on 30 foot mounting height. Maximum calculated value = 3.1 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	19702.9	0.0	19702.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	19702.9	0.0	19702.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	39405.7	0.0	39405.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.5	0.7
10°-20°	809.3	2.1
20°-30°	1478.9	3.8
30°-40°	2549.9	6.5
40°-50°	4358.9	11.1
50°-60°	7065.3	17.9
60°-70°	11721.1	29.7
70°-80°	10323.5	26.2
80°-90°	832.4	2.1
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°	39405.7	100.0
0°-180°	39405.7	100.0



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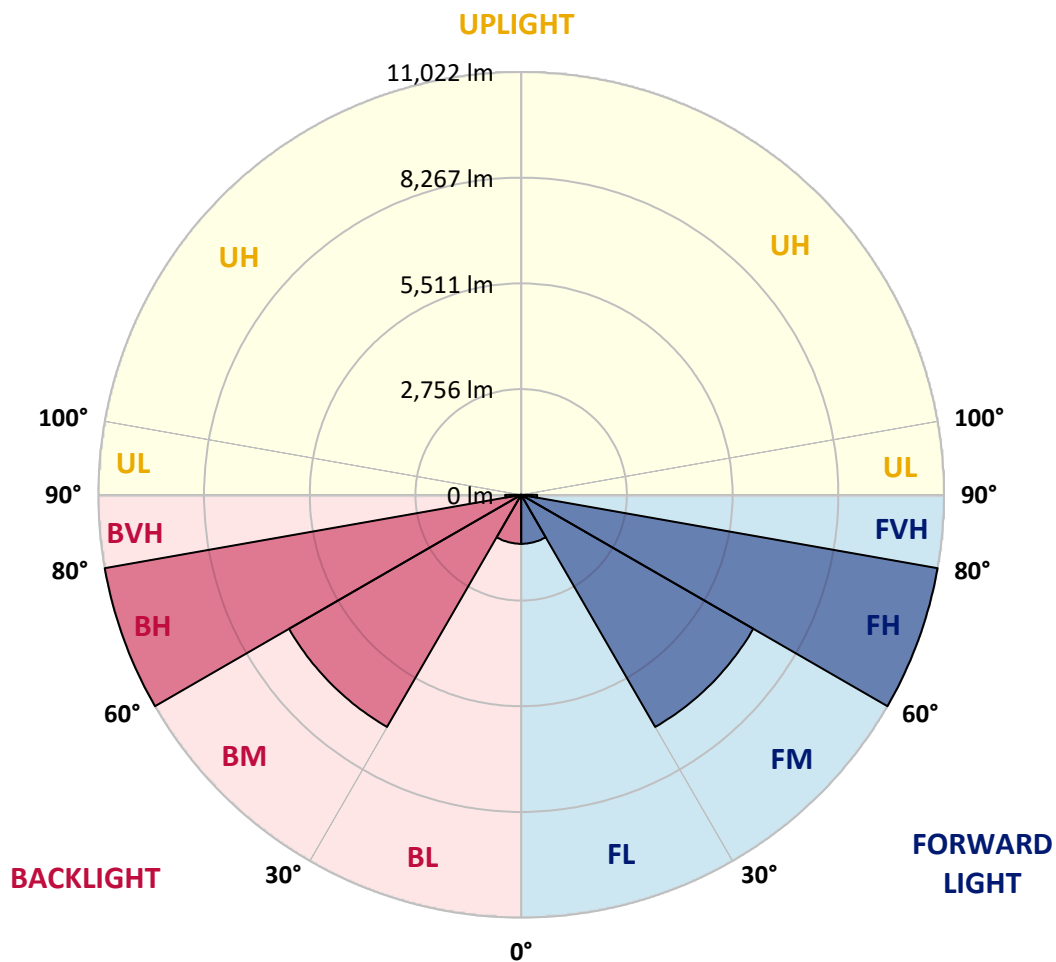
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1277.3	3.2			
FM	(30°-60°)	6987.1	17.7			
FH	(60°-80°)	11022.3	28.0			G4/12000
FVH	(80°-90°)	416.2	1.1			G3/500
BL	(0°-30°)	1277.3	3.2	B3/2500		
BM	(30°-60°)	6987.1	17.7	B4/8500		
BH	(60°-80°)	11022.3	28.0	B5		G4/12000
BVH	(80°-90°)	416.2	1.1			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2790.5	2790.5	2790.5	2790.5	2790.5	2790.5	2790.5	2790.5	2790.5	2790.5	2790.5
2.5°	2790.5	2792.3	2794.2	2792.3	2792.3	2790.5	2788.7	2790.5	2788.7	2785.1	2786.9
5°	2799.6	2803.2	2803.2	2799.6	2801.4	2799.6	2796.0	2797.8	2794.2	2788.7	2788.7
7.5°	2810.4	2812.2	2812.2	2808.6	2810.4	2806.8	2803.2	2801.4	2797.8	2790.5	2785.1
10°	2826.7	2828.5	2826.7	2823.1	2823.1	2817.6	2808.6	2805.0	2797.8	2786.9	2781.5
12.5°	2844.8	2846.6	2844.8	2841.1	2839.3	2830.3	2823.1	2817.6	2812.2	2803.2	2794.2
15°	2870.1	2873.7	2870.1	2862.8	2857.4	2850.2	2846.6	2848.4	2850.2	2843.0	2833.9
17.5°	2917.1	2918.9	2913.4	2897.2	2889.9	2882.7	2882.7	2886.3	2891.7	2888.1	2879.1
20°	3003.8	2998.4	2985.7	2965.8	2956.8	2944.2	2942.4	2944.2	2944.2	2942.4	2935.1
22.5°	3112.2	3108.6	3092.4	3067.1	3054.4	3047.2	3036.3	3027.3	3025.5	3020.1	3012.8
25°	3242.4	3240.6	3220.7	3199.0	3190.0	3180.9	3171.9	3159.2	3148.4	3135.7	3128.5
27.5°	3408.6	3401.4	3372.5	3361.7	3349.0	3343.6	3330.9	3316.5	3307.4	3291.2	3282.1
30°	3591.2	3591.2	3567.7	3564.1	3564.1	3551.4	3537.0	3511.7	3495.4	3479.1	3473.7
32.5°	3773.7	3775.5	3752.0	3759.3	3764.7	3773.7	3773.3	3768.3	3757.5	3755.7	3744.8
35°	4037.6	4030.4	4006.9	4012.3	4010.5	4008.7	4008.7	4028.6	4032.2	4035.8	4014.1
37.5°	4364.7	4364.7	4341.2	4341.2	4330.4	4319.5	4305.1	4317.7	4337.6	4343.0	4328.6
40°	4738.9	4751.5	4722.6	4720.8	4724.4	4690.1	4673.8	4693.7	4706.3	4728.0	4711.7
42.5°	5179.8	5170.8	5141.9	5138.3	5118.4	5107.6	5093.1	5109.4	5129.2	5143.7	5149.1
45°	5602.8	5595.5	5563.0	5563.0	5543.1	5534.1	5541.3	5568.4	5577.5	5597.3	5617.2
47.5°	6020.3	6011.2	5989.5	5998.6	6000.4	6016.6	6040.1	6065.4	6090.7	6117.9	6126.9
50°	6446.8	6448.6	6425.1	6446.8	6473.9	6519.1	6582.3	6623.9	6676.3	6710.7	6721.5
52.5°	6835.4	6842.6	6867.9	6918.5	6972.7	7061.3	7169.7	7270.9	7357.7	7415.5	7411.9
55°	7301.7	7312.5	7374.0	7460.7	7549.3	7683.0	7843.9	8022.8	8167.4	8250.5	8198.1
57.5°	7898.1	7921.6	7990.3	8107.7	8239.7	8413.2	8633.7	8903.0	9127.1	9239.1	9154.2
60°	8716.8	8731.3	8814.4	8944.5	9103.6	9318.7	9613.3	9974.7	10291.0	10439.2	10341.6
62.5°	9795.8	9822.9	9889.8	10021.7	10184.4	10428.4	10788.0	11239.9	11633.9	11839.9	11619.4
65°	11084.4	11171.2	11227.2	11361.0	11512.8	11771.2	12147.2	12631.5	13054.4	13190.0	12935.2
67.5°	12360.4	12436.3	12533.9	12687.5	12841.2	13132.2	13481.0	13950.9	14415.4	14538.3	14142.5
70°	12918.9	12962.3	13114.1	13323.7	13618.3	13961.7	14364.8	14892.5	15467.2	15568.5	15066.0
72.5°	11800.1	11843.5	12013.4	12369.5	12882.7	13428.6	14131.6	14907.0	15666.0	15779.9	15087.7
75°	8924.7	8854.2	9105.4	9577.1	10269.3	11030.2	12013.4	13124.9	14222.0	14364.8	13538.8
77.5°	4612.3	4603.3	4793.1	5378.7	6204.6	7070.3	8152.9	9409.0	10482.6	10916.4	10244.0
80°	1299.5	1313.9	1404.3	1695.3	2177.8	2803.2	3649.0	4825.6	5704.0	6152.2	5776.3
82.5°	509.7	549.4	583.8	638.0	701.2	793.4	1059.1	1576.0	2114.6	2526.7	2069.4
85°	182.5	195.2	276.5	327.1	332.6	350.6	399.4	466.3	562.1	670.5	551.2
87.5°	68.7	75.9	88.6	146.4	144.6	131.9	160.9	168.1	126.5	115.7	142.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2790.5	2790.5	2790.5	2790.5	2790.5	2790.5	2790.5	2790.5
2.5°	2783.3	2785.1	2785.1	2786.9	2788.7	2788.7	2792.3	2792.3
5°	2785.1	2785.1	2781.5	2783.3	2781.5	2781.5	2783.3	2783.3
7.5°	2781.5	2779.7	2776.1	2774.3	2770.7	2770.7	2770.7	2770.7
10°	2776.1	2774.3	2770.7	2768.8	2767.0	2767.0	2767.0	2767.0
12.5°	2790.5	2785.1	2781.5	2779.7	2779.7	2779.7	2779.7	2779.7
15°	2828.5	2815.8	2806.8	2806.8	2808.6	2812.2	2812.2	2815.8
17.5°	2875.5	2861.0	2852.0	2844.8	2848.4	2853.8	2857.4	2861.0
20°	2931.5	2924.3	2911.6	2904.4	2904.4	2911.6	2915.2	2917.1
22.5°	3009.2	3003.8	2998.4	2989.3	2989.3	2993.0	3000.2	3000.2
25°	3124.9	3121.3	3117.7	3110.4	3108.6	3108.6	3112.2	3115.9
27.5°	3269.5	3271.3	3267.7	3265.9	3260.4	3258.6	3264.1	3262.3
30°	3462.9	3471.9	3480.9	3473.7	3464.7	3459.3	3453.8	3446.6
32.5°	3724.9	3714.1	3706.9	3694.2	3677.9	3663.5	3652.6	3640.0
35°	3972.5	3954.5	3947.2	3958.1	3956.3	3947.2	3934.6	3923.7
37.5°	4276.2	4272.6	4276.2	4296.1	4292.4	4301.5	4276.2	4274.4
40°	4659.3	4662.9	4688.2	4711.7	4724.4	4737.0	4722.6	4708.1
42.5°	5103.9	5102.1	5111.2	5143.7	5165.4	5179.8	5149.1	5145.5
45°	5573.8	5561.2	5568.4	5595.5	5617.2	5633.5	5599.1	5599.1
47.5°	6090.7	6069.1	6045.6	6076.3	6088.9	6099.8	6072.7	6063.6
50°	6667.3	6622.1	6571.5	6584.1	6584.1	6580.5	6546.2	6544.4
52.5°	7328.8	7245.6	7153.5	7119.1	7099.2	7077.6	7017.9	6989.0
55°	8089.7	7965.0	7820.4	7731.8	7684.8	7625.2	7525.8	7498.7
57.5°	8978.9	8783.7	8534.3	8425.8	8321.0	8223.4	8113.2	8082.4
60°	10032.6	9745.2	9414.4	9213.8	9100.0	9006.0	8892.1	8886.7
62.5°	11207.3	10753.7	10379.6	10198.8	10115.7	10032.6	9924.1	9938.6
65°	12402.0	11928.5	11577.8	11431.4	11353.7	11285.0	11176.6	11192.9
67.5°	13580.4	13144.8	12759.8	12609.8	12523.1	12436.3	12338.7	12355.0
70°	14426.2	13885.8	13452.1	13119.5	12911.7	12676.7	12524.9	12486.9
72.5°	14184.0	13350.8	12662.2	12002.6	11615.8	11301.3	11088.0	10995.9
75°	12275.5	11136.8	10251.2	9441.6	8986.1	8615.6	8346.3	8178.2
77.5°	9116.2	7836.6	6790.2	5857.6	5120.2	4625.0	4276.2	4050.3
80°	4990.1	3795.4	2774.3	1950.1	1433.2	1191.0	1051.9	985.0
82.5°	1554.3	1003.1	739.2	638.0	592.8	567.5	525.9	459.1
85°	495.2	433.8	403.0	385.0	366.9	319.9	220.5	200.6
87.5°	191.6	197.0	195.2	184.3	188.0	135.6	108.4	95.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)