

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: P299854

Luminaire Tested: **GLNA-AF-07-LED-E1-5WQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299854
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-07-LED-E1-5WQ
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 44192.7 lumens
Efficiency: N/A
Efficacy: 113.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G5

Input Watts (W): 391
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

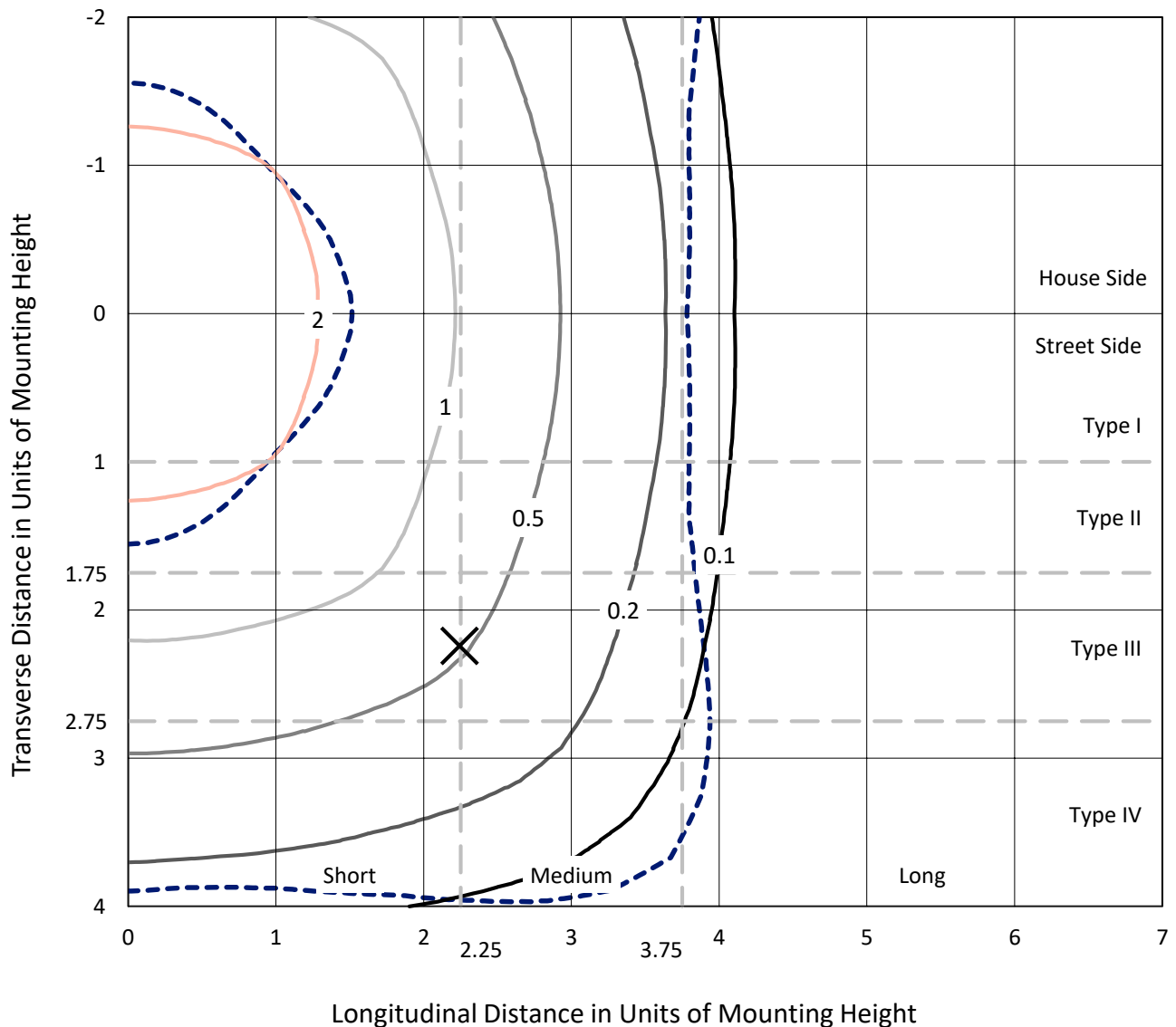


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

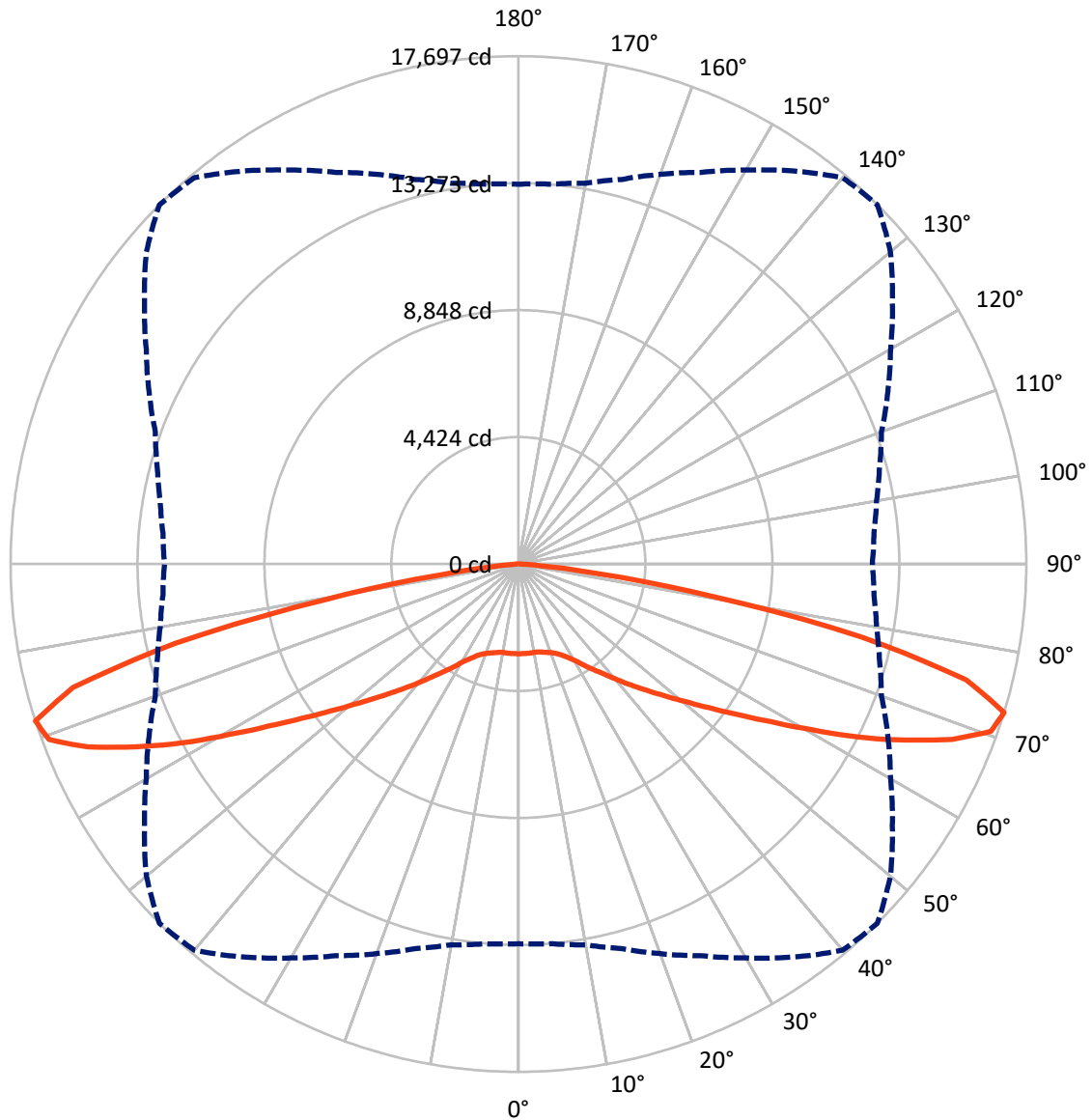


Based on 30 foot mounting height. Maximum calculated value = 3.5 fc
 Type V - Short - Semi-Cutoff

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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	22096.4	0.0	22096.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	22096.4	0.0	22096.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	44192.7	0.0	44192.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.8	0.7
10°-20°	907.6	2.1
20°-30°	1658.5	3.8
30°-40°	2859.6	6.5
40°-50°	4888.5	11.1
50°-60°	7923.6	17.9
60°-70°	13145.0	29.7
70°-80°	11577.6	26.2
80°-90°	933.5	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°	44192.7	100.0
0°-180°	44192.7	100.0



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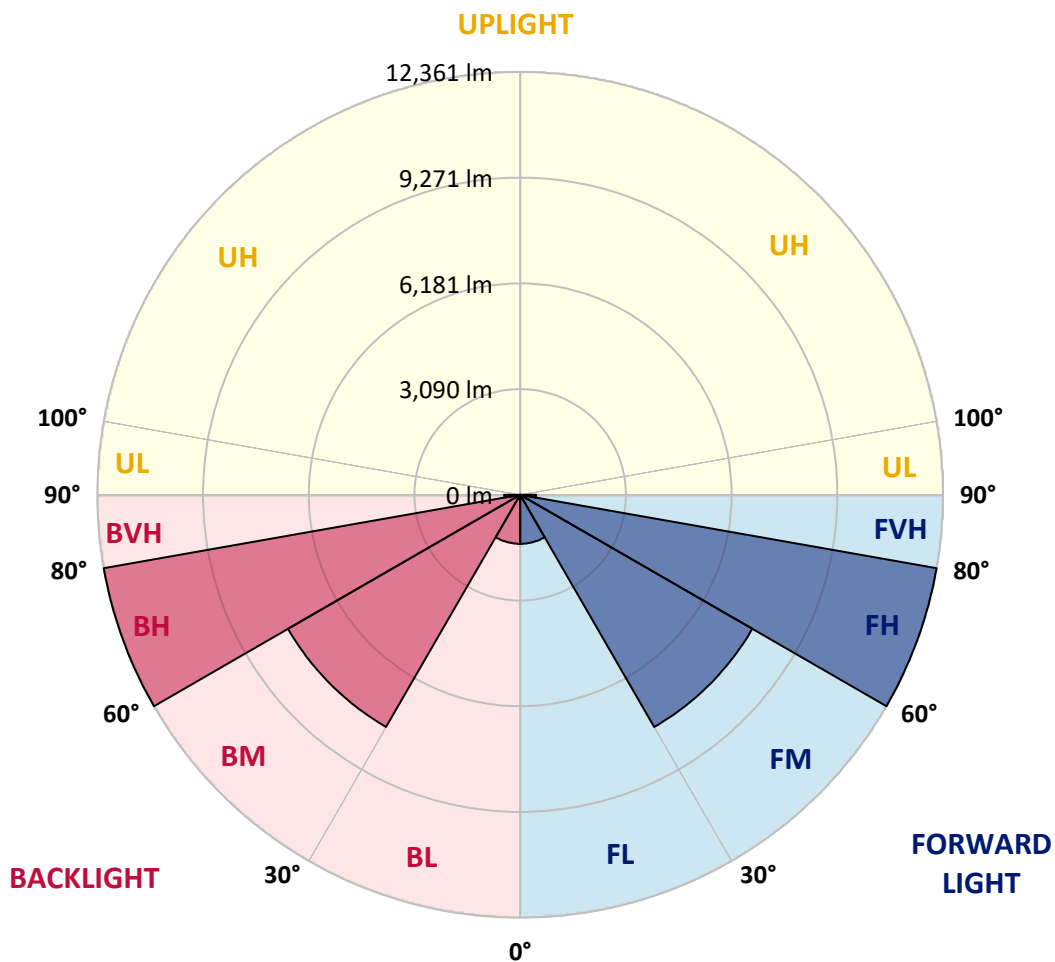
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1432.5	3.2			
FM	(30°-60°)	7835.8	17.7			
FH	(60°-80°)	12361.3	28.0			G5
FVH	(80°-90°)	466.7	1.1			G3/500
BL	(0°-30°)	1432.5	3.2	B3/2500		
BM	(30°-60°)	7835.8	17.7	B4/8500		
BH	(60°-80°)	12361.3	28.0	B5		G5
BVH	(80°-90°)	466.7	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-G5

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3129.5	3129.5	3129.5	3129.5	3129.5	3129.5	3129.5	3129.5	3129.5	3129.5	3129.5
2.5°	3129.5	3131.6	3133.6	3131.6	3131.6	3129.5	3127.5	3129.5	3127.5	3123.5	3125.5
5°	3139.7	3143.7	3143.7	3139.7	3141.7	3139.7	3135.6	3137.6	3133.6	3127.5	3127.5
7.5°	3151.8	3153.9	3153.9	3149.8	3151.8	3147.8	3143.7	3141.7	3137.6	3129.5	3123.5
10°	3170.1	3172.1	3170.1	3166.0	3166.0	3159.9	3149.8	3145.7	3137.6	3125.5	3119.4
12.5°	3190.3	3192.4	3190.3	3186.3	3184.3	3174.1	3166.0	3159.9	3153.9	3143.7	3133.6
15°	3218.7	3222.8	3218.7	3210.6	3204.5	3196.4	3192.4	3194.4	3196.4	3188.3	3178.2
17.5°	3271.4	3273.4	3267.4	3249.1	3241.0	3232.9	3232.9	3237.0	3243.0	3239.0	3228.8
20°	3368.7	3362.6	3348.4	3326.1	3316.0	3301.8	3299.8	3301.8	3301.8	3299.8	3291.7
22.5°	3490.3	3486.3	3468.0	3439.6	3425.5	3417.4	3405.2	3395.1	3393.0	3386.9	3378.8
25°	3636.3	3634.2	3611.9	3587.6	3577.5	3567.3	3557.2	3543.0	3530.9	3516.7	3508.6
27.5°	3822.7	3814.6	3782.2	3770.0	3755.8	3749.8	3735.6	3719.4	3709.2	3691.0	3680.8
30°	4027.4	4027.4	4001.1	3997.0	3997.0	3982.9	3966.6	3938.3	3920.0	3901.8	3895.7
32.5°	4232.2	4234.2	4207.8	4215.9	4222.0	4232.2	4236.2	4226.1	4213.9	4211.9	4199.7
35°	4528.1	4520.0	4493.6	4499.7	4497.7	4495.7	4495.7	4518.0	4522.0	4526.1	4501.7
37.5°	4895.0	4895.0	4868.6	4868.6	4856.4	4844.3	4828.1	4842.3	4864.6	4870.6	4854.4
40°	5314.5	5328.7	5296.3	5294.3	5298.3	5259.8	5241.6	5263.9	5278.0	5302.4	5284.1
42.5°	5809.1	5799.0	5766.5	5762.5	5740.2	5728.0	5711.8	5730.0	5752.3	5768.6	5774.6
45°	6283.4	6275.3	6238.8	6238.8	6216.5	6206.4	6214.5	6244.9	6255.0	6277.3	6299.6
47.5°	6751.6	6741.5	6717.1	6727.3	6729.3	6747.5	6773.9	6802.3	6830.6	6861.1	6871.2
50°	7229.9	7232.0	7205.6	7229.9	7260.4	7311.0	7382.0	7428.6	7487.4	7525.9	7538.0
52.5°	7665.7	7673.8	7702.2	7759.0	7819.8	7919.1	8040.7	8154.2	8251.5	8316.4	8312.3
55°	8188.7	8200.8	8269.7	8367.0	8466.4	8616.3	8796.7	8997.4	9159.6	9252.8	9194.0
57.5°	8857.5	8883.9	8960.9	9092.7	9240.6	9435.2	9682.5	9984.5	10235.8	10361.5	10266.2
60°	9775.7	9791.9	9885.2	10031.1	10209.5	10450.7	10781.1	11186.5	11541.2	11707.4	11597.9
62.5°	10985.8	11016.2	11091.2	11239.2	11421.6	11695.2	12098.6	12605.3	13047.1	13278.2	13030.9
65°	12431.0	12528.3	12591.1	12741.1	12911.3	13201.2	13622.8	14166.0	14640.3	14792.3	14506.5
67.5°	13862.0	13947.1	14056.5	14228.8	14401.1	14727.4	15118.6	15645.6	16166.5	16304.4	15860.5
70°	14488.3	14536.9	14707.2	14942.3	15272.7	15657.8	16109.8	16701.6	17346.2	17459.7	16896.2
72.5°	13233.6	13282.3	13472.8	13872.1	14447.7	15059.9	15848.3	16717.9	17569.2	17696.9	16920.6
75°	10008.8	9929.8	10211.5	10740.5	11516.8	12370.2	13472.8	14719.3	15949.7	16109.8	15183.5
77.5°	5172.6	5162.5	5375.3	6032.1	6958.3	7929.2	9143.3	10552.0	11756.0	12242.5	11488.5
80°	1457.3	1473.6	1574.9	1901.2	2442.4	3143.7	4092.3	5411.8	6396.9	6899.6	6478.0
82.5°	571.6	616.2	654.7	715.5	786.4	889.8	1187.8	1767.5	2371.5	2833.6	2320.8
85°	204.7	218.9	310.1	366.9	372.9	393.2	447.9	522.9	630.4	752.0	618.2
87.5°	77.0	85.1	99.3	164.2	162.2	148.0	180.4	188.5	141.9	129.7	160.1
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°	3129.5	3129.5	3129.5	3129.5	3129.5	3129.5	3129.5	3129.5
2.5°	3121.4	3123.5	3123.5	3125.5	3127.5	3127.5	3131.6	3131.6
5°	3123.5	3123.5	3119.4	3121.4	3119.4	3119.4	3121.4	3121.4
7.5°	3119.4	3117.4	3113.3	3111.3	3107.2	3107.2	3107.2	3107.2
10°	3113.3	3111.3	3107.2	3105.2	3103.2	3103.2	3103.2	3103.2
12.5°	3129.5	3123.5	3119.4	3117.4	3117.4	3117.4	3117.4	3117.4
15°	3172.1	3157.9	3147.8	3147.8	3149.8	3153.9	3153.9	3157.9
17.5°	3224.8	3208.6	3198.4	3190.3	3194.4	3200.5	3204.5	3208.6
20°	3287.6	3279.5	3265.3	3257.2	3257.2	3265.3	3269.4	3271.4
22.5°	3374.8	3368.7	3362.6	3352.5	3352.5	3356.5	3364.7	3364.7
25°	3504.5	3500.5	3496.4	3488.3	3486.3	3486.3	3490.3	3494.4
27.5°	3666.7	3668.7	3664.6	3662.6	3656.5	3654.5	3660.6	3658.6
30°	3883.5	3893.7	3903.8	3895.7	3885.6	3879.5	3873.4	3865.3
32.5°	4177.4	4165.3	4157.2	4143.0	4124.7	4108.5	4096.4	4082.2
35°	4455.1	4434.9	4426.7	4438.9	4436.9	4426.7	4412.6	4400.4
37.5°	4795.6	4791.6	4795.6	4817.9	4813.9	4824.0	4795.6	4793.6
40°	5225.3	5229.4	5257.8	5284.1	5298.3	5312.5	5296.3	5280.1
42.5°	5724.0	5721.9	5732.1	5768.6	5792.9	5809.1	5774.6	5770.6
45°	6251.0	6236.8	6244.9	6275.3	6299.6	6317.8	6279.3	6279.3
47.5°	6830.6	6806.3	6780.0	6814.4	6828.6	6840.8	6810.4	6800.2
50°	7477.2	7426.6	7369.8	7384.0	7384.0	7379.9	7341.4	7339.4
52.5°	8219.1	8125.8	8022.5	7984.0	7961.7	7937.3	7870.4	7838.0
55°	9072.4	8932.5	8770.4	8671.1	8618.4	8551.5	8440.0	8409.6
57.5°	10069.6	9850.7	9571.0	9449.4	9331.8	9222.4	9098.7	9064.3
60°	11251.3	10929.0	10558.1	10333.1	10205.4	10100.0	9972.3	9966.3
62.5°	12568.8	12060.0	11640.5	11437.8	11344.6	11251.3	11129.7	11145.9
65°	13908.6	13377.5	12984.3	12820.1	12733.0	12656.0	12534.3	12552.6
67.5°	15230.1	14741.6	14309.9	14141.7	14044.4	13947.1	13837.6	13855.9
70°	16178.7	15572.7	15086.2	14713.3	14480.2	14216.7	14046.4	14003.8
72.5°	15907.1	14972.7	14200.5	13460.6	13026.9	12674.2	12435.0	12331.7
75°	13766.7	12489.8	11496.6	10588.5	10077.7	9662.2	9360.2	9171.7
77.5°	10223.7	8788.6	7615.1	6569.2	5742.2	5186.8	4795.6	4542.3
80°	5596.3	4256.5	3111.3	2187.0	1607.3	1335.7	1179.7	1104.7
82.5°	1743.1	1124.9	829.0	715.5	664.8	636.4	589.8	514.8
85°	555.4	486.5	452.0	431.7	411.5	358.8	247.3	225.0
87.5°	214.9	220.9	218.9	206.7	210.8	152.0	121.6	107.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)