

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: P299995

Luminaire Tested: **GLNA-AF-06-LED-E1-SL3-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-06-LED-E1-SL3-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18200.5 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

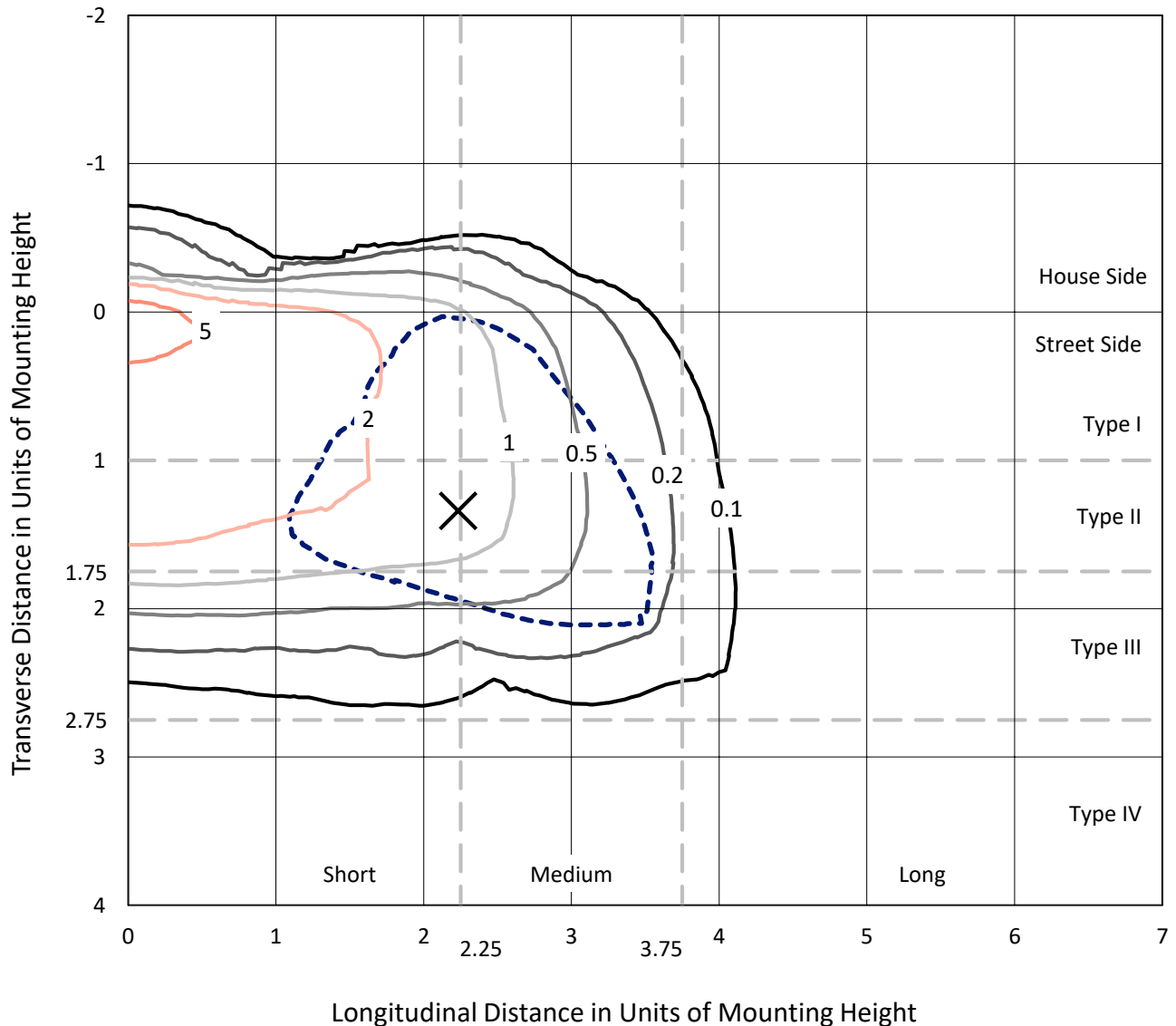
Input Watts (W): 193
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

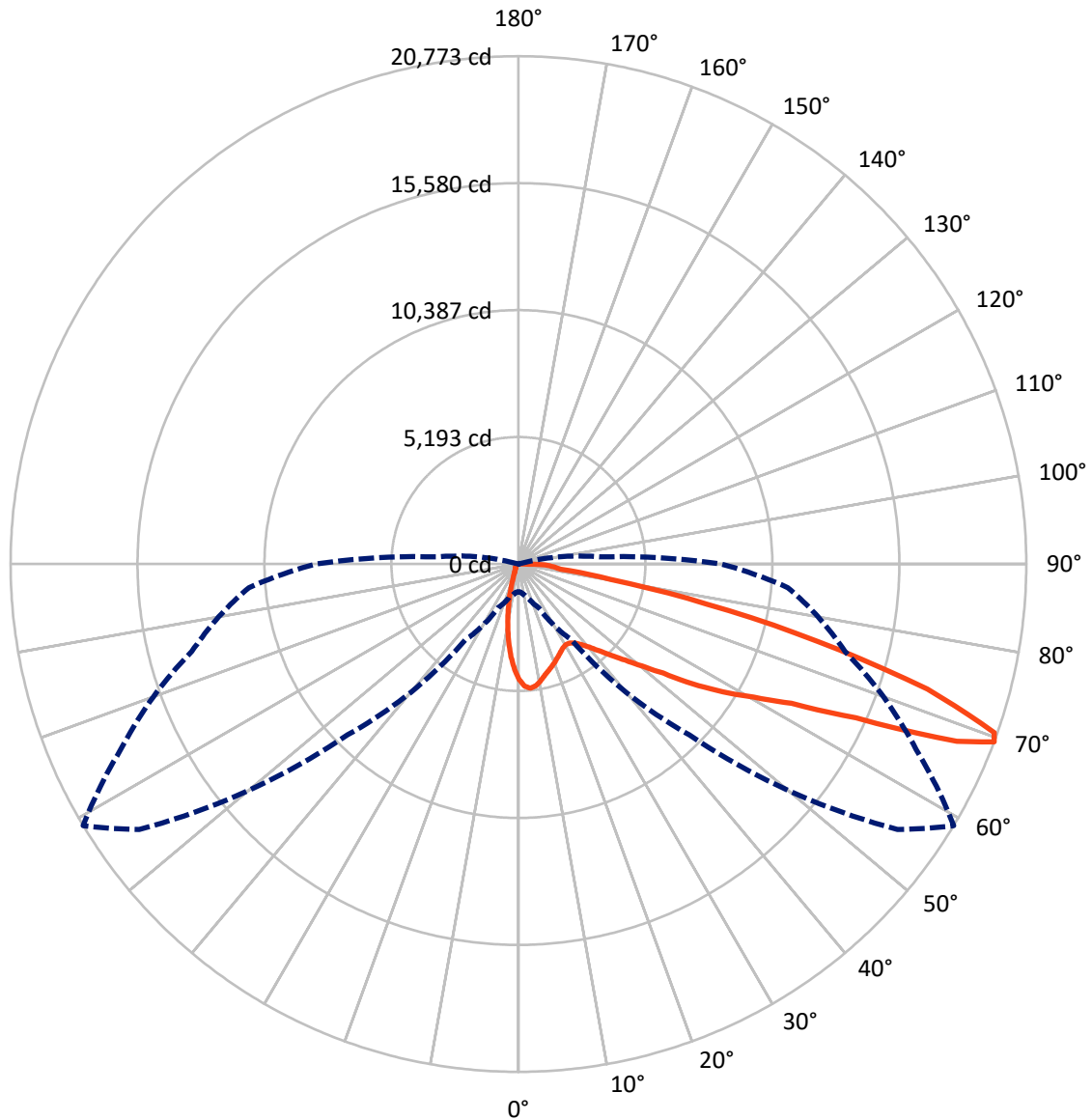
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.6 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1482.2	0.0	1482.2
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	16718.3	0.0	16718.3
	% Fixture	91.9	0.0	91.9
Total	Lumens	18200.5	0.0	18200.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	384.5	2.1
10°-20°	794.5	4.4
20°-30°	1069.2	5.9
30°-40°	1552.4	8.5
40°-50°	2584.8	14.2
50°-60°	4032.2	22.2
60°-70°	4989.6	27.4
70°-80°	2528.7	13.9
80°-90°	264.6	1.5
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°	18200.5	100.0
0°-180°	18200.5	100.0



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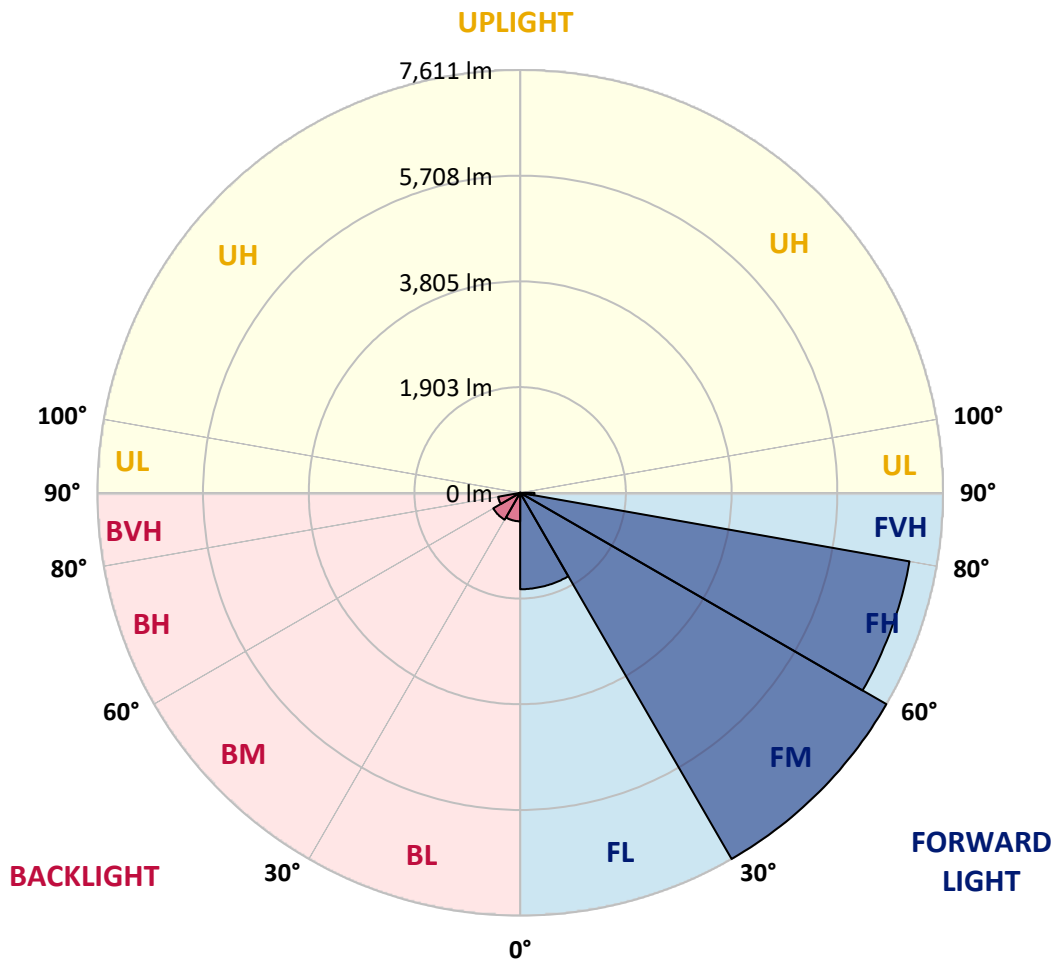
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1735.2	9.5			
FM	(30°-60°)	7610.9	41.8			
FH	(60°-80°)	7115.7	39.1			G3/7500
FVH	(80°-90°)	256.4	1.4			G3/500
BL	(0°-30°)	513.0	2.8	B2/1000		
BM	(30°-60°)	558.5	3.1	B1/1000		
BH	(60°-80°)	402.5	2.2	B1/500		G1/500
BVH	(80°-90°)	8.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	4737.2	4737.2	4737.2	4737.2	4737.2	4737.2	4737.2	4737.2	4737.2	4737.2	4737.2
2.5°	5192.2	5190.3	5167.6	5157.3	5138.6	5099.6	5038.9	5007.1	4955.7	4865.9	4745.7
5°	5144.8	5169.7	5182.8	5184.1	5197.5	5182.8	5128.3	5101.8	5030.8	4886.5	4670.6
7.5°	4823.9	4832.9	4871.2	4903.9	4967.8	5028.6	5048.2	5036.7	4994.6	4840.4	4553.1
10°	4480.2	4489.2	4534.7	4577.7	4664.3	4757.8	4856.6	4877.5	4894.9	4774.3	4440.0
12.5°	4183.5	4192.9	4239.3	4295.7	4396.7	4512.0	4665.3	4699.2	4776.5	4711.7	4349.3
15°	3928.3	3932.4	3977.9	4047.7	4168.3	4316.3	4490.5	4545.0	4663.4	4667.4	4270.2
17.5°	3711.1	3721.4	3749.5	3816.2	3948.0	4131.2	4334.0	4412.2	4550.9	4630.4	4192.9
20°	3578.4	3588.7	3587.8	3624.8	3743.2	3938.6	4177.6	4271.1	4440.0	4592.3	4124.0
22.5°	3552.9	3552.9	3526.1	3520.8	3590.9	3754.5	4015.0	4129.0	4340.0	4575.8	4075.7
25°	3644.5	3640.1	3573.4	3518.9	3522.0	3619.5	3857.3	3993.1	4255.8	4587.1	4049.9
27.5°	3838.0	3832.7	3748.2	3644.5	3561.0	3560.0	3737.9	3884.1	4188.8	4640.6	4060.1
30°	4105.3	4103.4	4011.8	3881.0	3729.8	3590.9	3696.8	3829.6	4145.5	4737.2	4083.8
32.5°	4397.6	4394.5	4325.6	4187.9	3996.3	3729.8	3740.1	3851.4	4158.0	4865.9	4141.5
35°	4707.6	4702.3	4672.4	4552.2	4341.2	3986.0	3882.2	3968.5	4236.2	5058.5	4254.6
37.5°	5042.9	5048.2	5069.7	4954.4	4733.2	4345.3	4120.0	4178.5	4393.5	5319.9	4438.7
40°	5538.1	5537.1	5544.3	5392.8	5180.0	4784.6	4452.1	4470.8	4657.2	5666.7	4718.9
42.5°	6436.4	6373.8	6183.4	5874.6	5660.5	5286.9	4871.2	4851.6	4979.4	6095.8	5110.8
45°	7643.8	7509.9	7016.0	6424.2	6150.3	5853.1	5386.6	5324.0	5405.3	6611.5	5594.8
47.5°	8682.1	8543.1	7844.5	6996.3	6670.1	6390.3	5990.8	5877.7	5904.5	7188.9	6208.0
50°	9035.1	8967.2	8357.1	7494.6	7173.3	7066.4	6691.9	6553.9	6515.9	7856.7	6919.1
52.5°	8912.7	8907.7	8501.0	7817.7	7634.5	7766.3	7573.7	7414.2	7274.3	8560.9	7642.6
55°	8716.1	8741.9	8559.6	8100.6	8094.4	8405.4	8779.9	8647.2	8241.8	9325.5	8266.4
57.5°	8173.9	8283.9	8526.9	8636.0	8889.0	9207.1	9784.5	9862.7	9383.2	9911.0	8784.0
60°	6632.1	6873.9	7668.5	8712.9	9913.2	10705.6	10997.0	11063.6	10319.5	10397.8	9482.9
62.5°	4707.6	4954.4	5962.1	7729.2	9928.5	12674.3	12803.0	12540.6	11350.9	11119.4	10688.2
65°	2498.7	2689.4	3512.7	5579.2	8608.2	13131.4	15961.7	15179.6	13170.4	12538.4	12245.2
67.5°	1278.2	1335.8	1663.3	2730.5	5917.9	11663.8	18792.9	19343.5	16306.3	13946.6	12170.1
69°	1131.1	1165.1	1382.3	1974.0	3789.4	9879.3	18930.9	20773.1	17948.1	13829.1	11059.6
70°	1095.0	1124.9	1322.4	1786.7	2962.1	8284.8	18402.7	20647.5	18367.8	13382.6	10230.1
72.5°	929.5	955.1	1177.5	1578.9	2407.4	4112.5	14949.0	17496.3	16482.4	11148.1	7404.8
75°	621.6	706.1	1130.2	1480.1	2239.5	2336.4	9855.6	12643.4	11745.1	7519.2	3857.3
77.5°	149.3	160.5	319.1	1177.5	2048.1	2056.2	5068.8	7859.8	6410.8	2680.1	911.7
80°	80.4	77.3	89.4	233.7	1907.0	1929.7	2281.8	3815.2	2289.0	444.7	300.4
82.5°	56.7	53.6	57.6	97.8	600.1	1757.7	1650.9	1726.9	948.8	170.8	134.9
85°	20.6	19.6	31.8	88.5	188.2	1010.5	1696.0	1424.3	768.7	78.2	98.8
87.5°	7.2	6.2	12.5	48.3	57.6	430.3	1046.7	1076.6	302.6	47.4	46.4
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°	4737.2	4737.2	4737.2	4737.2	4737.2	4737.2	4737.2	4737.2	4737.2	4737.2	4737.2
2.5°	4695.2	4631.3	4514.1	4393.5	4282.3	4148.6	4081.6	4015.9	3988.2	3977.9	3929.6
5°	4559.3	4451.2	4202.2	3952.0	3721.4	3476.5	3315.1	3185.5	3109.1	3072.1	3013.5
7.5°	4385.4	4208.5	3830.5	3444.7	3085.5	2731.5	2469.1	2267.2	2128.2	2061.5	2000.8
10°	4216.6	3981.0	3443.8	2917.8	2429.9	1960.6	1598.2	1335.8	1168.2	1090.9	1041.7
12.5°	4065.4	3759.8	3070.2	2404.3	1791.7	1242.3	873.7	665.0	560.9	524.7	507.3
15°	3930.5	3556.0	2717.1	1916.3	1213.4	710.1	477.7	406.6	390.1	390.1	387.9
17.5°	3802.8	3356.2	2376.3	1458.3	761.5	434.4	363.3	354.0	354.0	358.0	358.0
20°	3680.3	3165.8	2046.9	1046.7	479.6	344.6	328.4	326.2	328.4	333.4	333.4
22.5°	3575.3	2992.9	1739.3	718.2	356.2	310.7	302.6	299.4	300.4	303.5	305.7
25°	3497.1	2846.8	1449.2	486.7	306.6	282.9	273.9	268.6	264.5	264.5	266.4
27.5°	3447.8	2723.4	1168.2	354.0	275.8	257.4	242.7	234.6	225.3	220.3	222.2
30°	3411.7	2605.9	904.6	289.2	247.1	228.4	210.0	196.6	183.2	177.0	179.2
32.5°	3398.3	2511.2	676.2	255.2	221.2	200.7	177.9	160.5	146.1	140.8	142.1
35°	3434.4	2436.1	495.1	230.6	200.7	174.8	149.3	129.6	118.4	115.3	116.2
37.5°	3529.2	2395.9	370.5	210.0	182.3	153.3	124.6	105.9	98.8	98.8	99.7
40°	3708.0	2395.0	297.6	195.7	165.8	132.7	102.8	89.4	85.4	87.6	88.5
42.5°	3969.5	2449.5	259.3	182.3	151.4	113.1	85.4	76.0	75.1	77.3	78.2
45°	4326.6	2549.2	238.7	170.8	135.9	94.7	72.0	65.7	65.7	68.9	70.1
47.5°	4764.0	2695.3	221.2	159.5	120.3	79.1	61.7	57.6	58.6	61.7	62.6
50°	5291.0	2879.8	203.8	147.1	109.1	65.7	53.6	50.5	51.4	55.5	56.7
52.5°	5891.1	3127.8	189.5	135.9	94.7	54.5	45.2	43.3	45.2	49.5	50.5
55°	6405.5	3350.0	172.0	126.5	76.0	45.2	37.1	37.1	39.3	44.2	45.2
57.5°	6900.7	3582.5	156.4	109.1	59.8	36.1	30.8	31.8	34.9	40.2	41.1
60°	7627.3	3976.6	138.0	91.6	45.2	28.7	25.9	26.8	30.8	36.1	37.1
62.5°	8861.3	4576.8	119.3	76.0	34.9	22.7	20.6	22.7	27.7	34.0	34.9
65°	9974.9	4820.8	97.8	63.9	26.8	17.4	17.4	20.6	26.8	33.0	34.0
67.5°	9354.2	4058.0	76.0	50.5	20.6	13.4	14.3	19.6	25.9	33.0	34.0
69°	8272.6	3318.2	64.8	40.2	17.4	12.5	13.4	19.6	25.9	31.8	33.0
70°	7429.8	2801.6	57.6	34.0	15.6	12.5	13.4	18.4	25.9	31.8	33.0
72.5°	4976.2	1512.8	46.4	24.6	14.3	11.2	11.2	18.4	24.6	30.8	31.8
75°	2138.5	417.9	37.1	17.4	12.5	10.3	10.3	17.4	23.7	29.9	31.8
77.5°	391.1	105.9	29.9	15.6	12.5	10.3	9.3	16.5	22.7	28.7	29.9
80°	155.5	52.3	23.7	13.4	11.2	9.3	8.1	15.6	21.5	27.7	28.7
82.5°	93.8	29.9	19.6	12.5	11.2	8.1	7.2	13.4	20.6	26.8	27.7
85°	76.0	20.6	15.6	12.5	10.3	8.1	6.2	12.5	18.4	25.9	26.8
87.5°	37.1	14.3	14.3	11.2	10.3	8.1	6.2	11.2	17.4	24.6	25.9
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)