

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-10-LED-E1-SL3-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-10-LED-E1-SL3-HSS  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

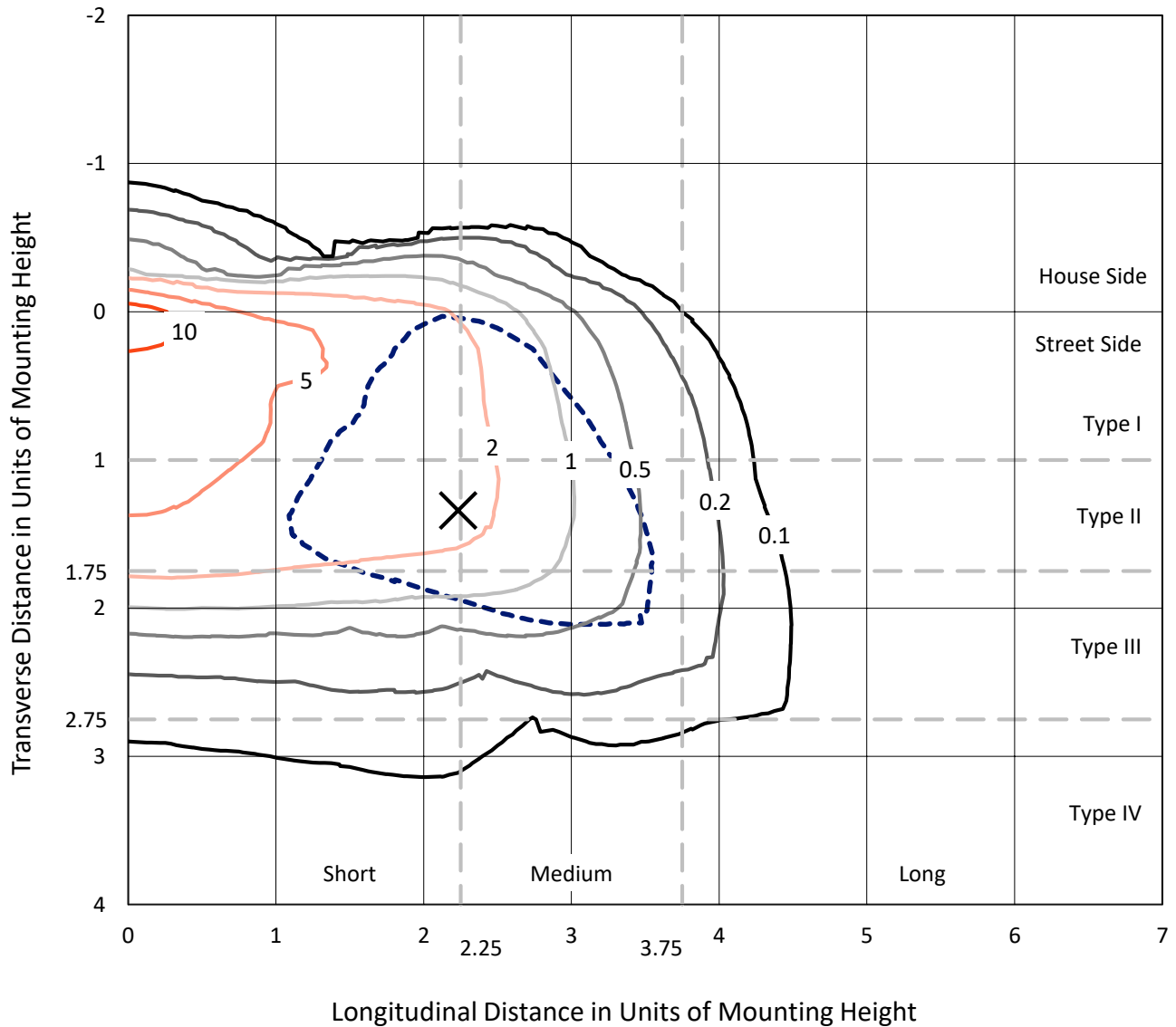
Lumens per Lamp: N/A  
Luminaire Lumens: 45721.8 lumens  
Efficiency: N/A  
Efficacy: 81.9 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (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

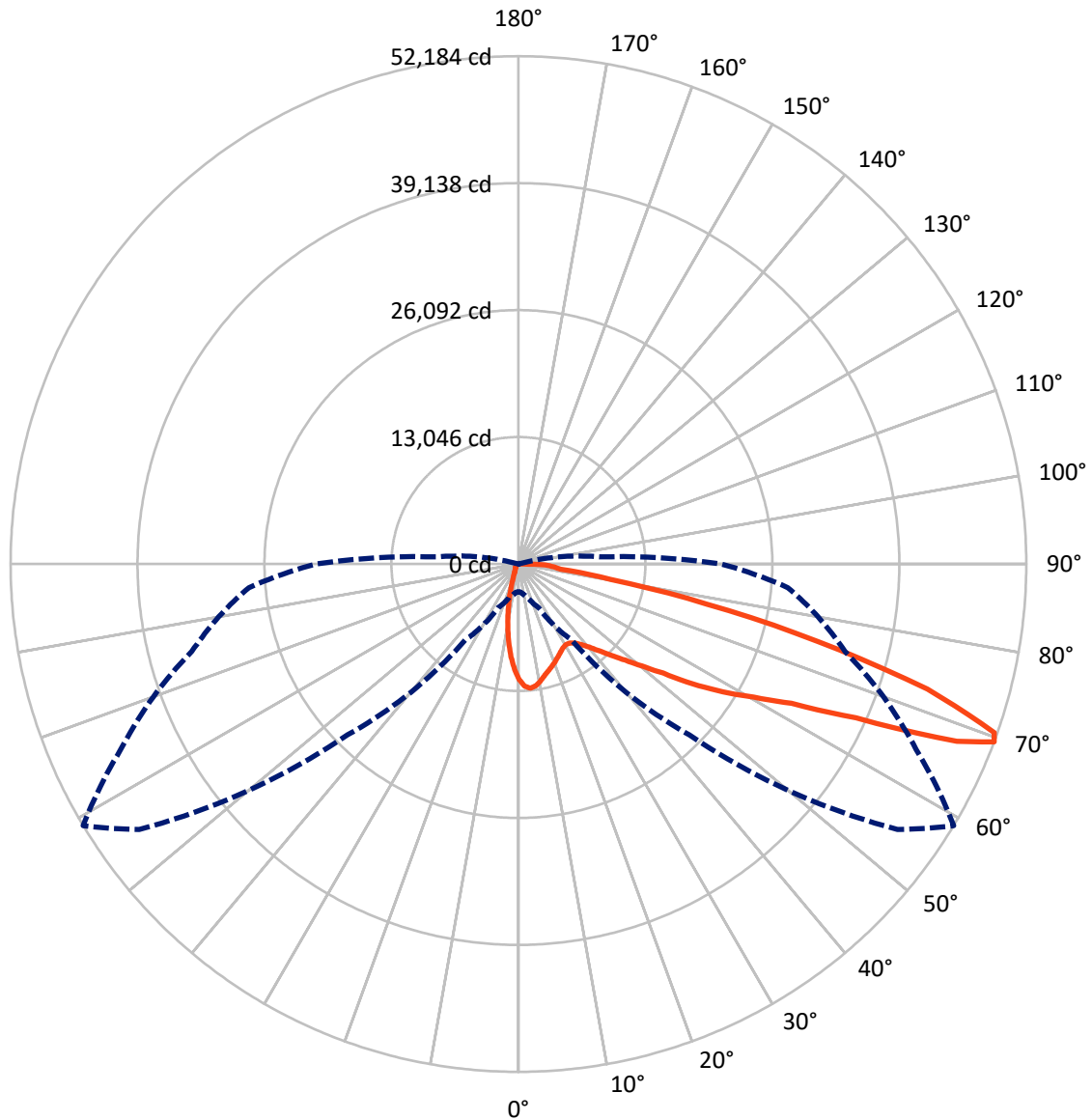
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.3 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
<b>House Side</b>	Lumens	3723.4	0.0	3723.4
	% Fixture	8.1	0.0	8.1
<b>Street Side</b>	Lumens	41998.4	0.0	41998.4
	% Fixture	91.9	0.0	91.9
<b>Total</b>	Lumens	45721.8	0.0	45721.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	966.0	2.1
10°-20°	1996.0	4.4
20°-30°	2685.9	5.9
30°-40°	3899.7	8.5
40°-50°	6493.3	14.2
50°-60°	10129.5	22.2
60°-70°	12534.5	27.4
70°-80°	6352.3	13.9
80°-90°	664.7	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°	45721.8	100.0
0°-180°	45721.8	100.0



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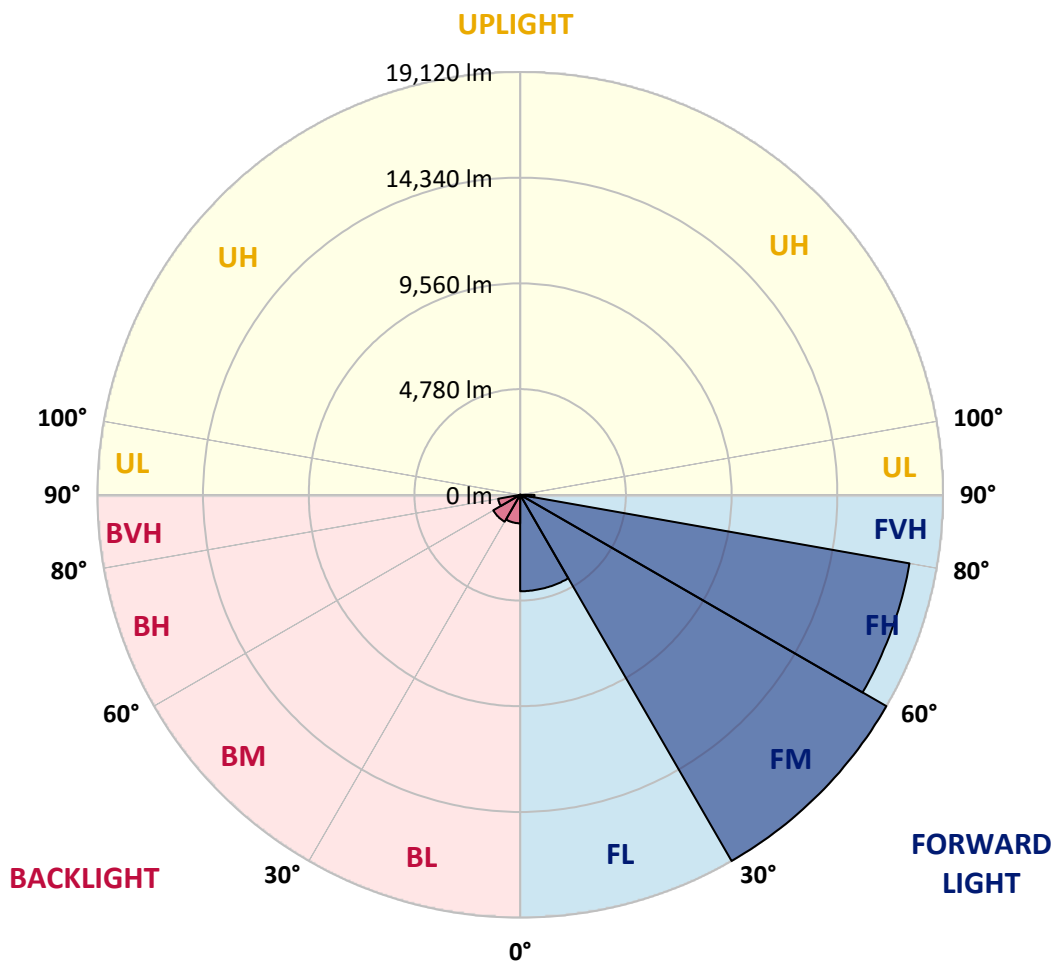
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4359.1	9.5			
FM	(30°-60°)	19119.5	41.8			
FH	(60°-80°)	17875.6	39.1			G5
FVH	(80°-90°)	644.2	1.4			G4/750
BL	(0°-30°)	1288.8	2.8	B3/2500		
BM	(30°-60°)	1403.0	3.1	B2/2500		
BH	(60°-80°)	1011.2	2.2	B3/2500		G3/2500
BVH	(80°-90°)	20.4	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G5**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	11900.5	11900.5	11900.5	11900.5	11900.5	11900.5	11900.5	11900.5	11900.5	11900.5	11900.5
2.5°	13043.4	13038.7	12981.5	12955.7	12908.7	12810.9	12658.2	12578.4	12449.2	12223.8	11921.7
5°	12924.4	12987.0	13019.9	13023.0	13056.7	13019.9	12882.9	12816.4	12637.9	12275.5	11733.0
7.5°	12118.1	12140.8	12237.1	12319.3	12479.8	12632.4	12681.7	12652.8	12547.1	12159.6	11437.9
10°	11254.7	11277.4	11391.7	11499.7	11717.3	11952.2	12200.3	12252.8	12296.6	11993.7	11153.7
12.5°	10509.5	10533.0	10649.6	10791.3	11044.9	11334.6	11719.7	11805.0	11999.1	11836.3	10926.0
15°	9868.4	9878.6	9992.9	10168.2	10471.2	10843.0	11280.6	11417.5	11715.0	11725.2	10727.1
17.5°	9322.8	9348.7	9419.1	9586.6	9917.7	10378.0	10887.6	11084.1	11432.4	11632.0	10533.0
20°	8989.4	9015.2	9012.9	9106.0	9403.5	9894.3	10494.7	10729.5	11153.7	11536.5	10360.0
22.5°	8925.2	8925.2	8857.9	8844.6	9020.7	9431.6	10086.0	10372.5	10902.5	11495.0	10238.7
25°	9155.3	9144.4	8976.9	8839.9	8847.7	9092.7	9690.0	10031.3	10691.1	11523.2	10173.7
27.5°	9641.4	9628.1	9416.0	9155.3	8945.5	8943.2	9390.2	9757.3	10522.8	11657.9	10199.5
30°	10313.0	10308.4	10078.2	9749.5	9369.8	9020.7	9286.8	9620.3	10414.0	11900.5	10259.0
32.5°	11047.3	11039.5	10866.5	10520.5	10039.1	9369.8	9395.6	9675.1	10445.3	12223.8	10403.9
35°	11826.2	11812.8	11737.7	11435.5	10905.6	10013.2	9752.6	9969.4	10641.8	12707.6	10688.0
37.5°	12668.4	12681.7	12735.7	12446.1	11890.3	10915.8	10349.8	10497.0	11037.1	13364.3	11150.6
40°	13912.2	13909.9	13927.9	13547.5	13012.8	12019.5	11184.3	11231.2	11699.3	14235.5	11854.3
42.5°	16169.0	16011.6	15533.4	14757.6	14219.9	13281.3	12237.1	12187.8	12508.7	15313.4	12839.1
45°	19202.2	18865.6	17624.9	16138.5	15450.4	14703.6	13531.8	13374.5	13578.8	16608.9	14054.7
47.5°	21810.4	21461.3	19706.3	17575.6	16756.1	16053.1	15049.6	14765.5	14832.8	18059.4	15595.2
50°	22697.3	22526.7	20994.0	18827.3	18020.2	17751.8	16810.9	16464.1	16368.6	19736.9	17381.5
52.5°	22389.7	22377.2	21355.6	19639.0	19178.7	19509.9	19026.1	18625.3	18273.9	21505.9	19199.1
55°	21895.8	21960.7	21502.8	20349.8	20334.1	21115.3	22056.2	21722.8	20704.4	23426.9	20766.2
57.5°	20533.7	20810.1	21420.6	21694.6	22330.2	23129.4	24579.9	24776.4	23571.7	24897.7	22066.4
60°	16660.6	17268.0	19264.1	21887.9	24903.2	26893.8	27625.7	27793.2	25923.9	26120.4	23822.2
62.5°	11826.2	12446.1	14977.6	19416.7	24941.5	31839.3	32162.6	31503.5	28514.9	27933.3	26849.9
65°	6277.1	6756.1	8824.2	14015.6	21624.9	32987.7	40097.6	38132.8	33085.5	31498.0	30761.5
67.5°	3210.9	3355.8	4178.4	6859.4	14866.4	29300.8	47209.9	48593.1	40963.4	35035.4	30572.8
69°	2841.5	2926.8	3472.4	4958.9	9519.3	24817.9	47556.7	52184.4	45087.8	34740.3	27783.0
70°	2750.7	2825.8	3322.1	4488.4	7441.1	20812.4	46229.9	51869.0	46142.2	33618.6	25699.3
72.5°	2335.0	2399.2	2958.1	3966.3	6047.7	10331.1	37553.6	43952.8	41405.6	28005.3	18601.8
75°	1561.6	1773.8	2839.1	3718.2	5625.8	5869.2	24758.4	31761.8	29505.1	18889.1	9690.0
77.5°	374.9	403.1	801.6	2958.1	5145.2	5165.5	12733.4	19744.7	16104.8	6732.6	2290.4
80°	202.0	194.1	224.7	587.1	4790.6	4847.7	5732.3	9584.3	5750.3	1117.0	754.6
82.5°	142.5	134.6	144.8	245.8	1507.6	4415.6	4147.1	4338.1	2383.5	429.0	338.9
85°	51.7	49.3	79.8	222.3	472.8	2538.5	4260.6	3578.1	1931.1	196.5	248.1
87.5°	18.0	15.7	31.3	121.3	144.8	1081.0	2629.3	2704.5	760.1	119.0	116.6
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°	11900.5	11900.5	11900.5	11900.5	11900.5	11900.5	11900.5	11900.5	11900.5	11900.5	11900.5
2.5°	11794.8	11634.4	11340.0	11037.1	10757.7	10421.9	10253.6	10088.4	10018.7	9992.9	9871.6
5°	11453.6	11181.9	10556.5	9927.9	9348.7	8733.4	8327.9	8002.3	7810.5	7717.4	7570.2
7.5°	11016.8	10572.1	9622.6	8653.6	7751.0	6861.8	6202.7	5695.5	5346.3	5178.8	5026.2
10°	10592.5	10000.7	8651.2	7329.9	6104.1	4925.2	4014.8	3355.8	2934.6	2740.5	2616.8
12.5°	10212.9	9445.0	7712.7	6039.9	4501.0	3120.9	2194.9	1670.4	1409.0	1318.2	1274.4
15°	9873.9	8933.0	6825.8	4814.1	3048.1	1783.9	1200.0	1021.5	980.0	980.0	974.6
17.5°	9553.0	8431.3	5969.4	3663.4	1913.1	1091.2	912.7	889.2	889.2	899.4	899.4
20°	9245.3	7953.0	5142.0	2629.3	1204.7	865.7	825.0	819.6	825.0	837.6	837.6
22.5°	8981.6	7518.5	4369.4	1804.3	894.7	780.4	760.1	752.2	754.6	762.4	767.9
25°	8785.1	7151.4	3640.7	1222.7	770.2	710.8	688.1	674.8	664.6	664.6	669.3
27.5°	8661.4	6841.4	2934.6	889.2	692.8	646.6	609.8	589.4	565.9	553.4	558.1
30°	8570.6	6546.3	2272.4	726.4	620.7	573.8	527.6	493.9	460.3	444.6	450.1
32.5°	8536.9	6308.4	1698.6	641.1	555.8	504.1	447.0	403.1	367.1	353.8	356.9
35°	8627.7	6119.7	1243.8	579.3	504.1	439.1	374.9	325.6	297.5	289.6	292.0
37.5°	8865.7	6018.8	930.7	527.6	457.9	385.1	313.1	266.1	248.1	248.1	250.5
40°	9315.0	6016.4	747.5	491.6	416.4	333.5	258.3	224.7	214.5	220.0	222.3
42.5°	9971.8	6153.4	651.3	457.9	380.4	284.1	214.5	191.0	188.6	194.1	196.5
45°	10868.8	6403.9	599.6	429.0	341.3	238.0	180.8	165.2	165.2	173.0	176.1
47.5°	11967.8	6771.0	555.8	400.8	302.2	198.8	155.0	144.8	147.2	155.0	157.3
50°	13291.5	7234.4	511.9	369.5	274.0	165.2	134.6	126.8	129.2	139.3	142.5
52.5°	14799.1	7857.5	475.9	341.3	238.0	137.0	113.5	108.8	113.5	124.5	126.8
55°	16091.5	8415.6	432.1	317.8	191.0	113.5	93.2	93.2	98.6	111.2	113.5
57.5°	17335.3	8999.6	393.0	274.0	150.3	90.8	77.5	79.8	87.7	101.0	103.3
60°	19160.7	9989.8	346.8	230.1	113.5	72.0	65.0	67.3	77.5	90.8	93.2
62.5°	22260.5	11497.4	299.8	191.0	87.7	57.1	51.7	57.1	69.7	85.3	87.7
65°	25058.2	12110.3	245.8	160.5	67.3	43.8	43.8	51.7	67.3	83.0	85.3
67.5°	23498.9	10194.1	191.0	126.8	51.7	33.7	36.0	49.3	65.0	83.0	85.3
69°	20781.9	8335.8	162.8	101.0	43.8	31.3	33.7	49.3	65.0	79.8	83.0
70°	18664.5	7037.9	144.8	85.3	39.1	31.3	33.7	46.2	65.0	79.8	83.0
72.5°	12500.9	3800.4	116.6	61.8	36.0	28.2	28.2	46.2	61.8	77.5	79.8
75°	5372.2	1049.7	93.2	43.8	31.3	25.8	25.8	43.8	59.5	75.1	79.8
77.5°	982.4	266.1	75.1	39.1	31.3	25.8	23.5	41.5	57.1	72.0	75.1
80°	390.6	131.5	59.5	33.7	28.2	23.5	20.4	39.1	54.0	69.7	72.0
82.5°	235.6	75.1	49.3	31.3	28.2	20.4	18.0	33.7	51.7	67.3	69.7
85°	191.0	51.7	39.1	31.3	25.8	20.4	15.7	31.3	46.2	65.0	67.3
87.5°	93.2	36.0	36.0	28.2	25.8	20.4	15.7	28.2	43.8	61.8	65.0
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)