

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-09-LED-E1-SL3-7060-800-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-09-LED-E1-SL3-7060-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 5700K CCT 800mA 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: 33362.7 lumens  
Efficiency: N/A  
Efficacy: 89.2 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G5

Input Watts (W): 374  
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

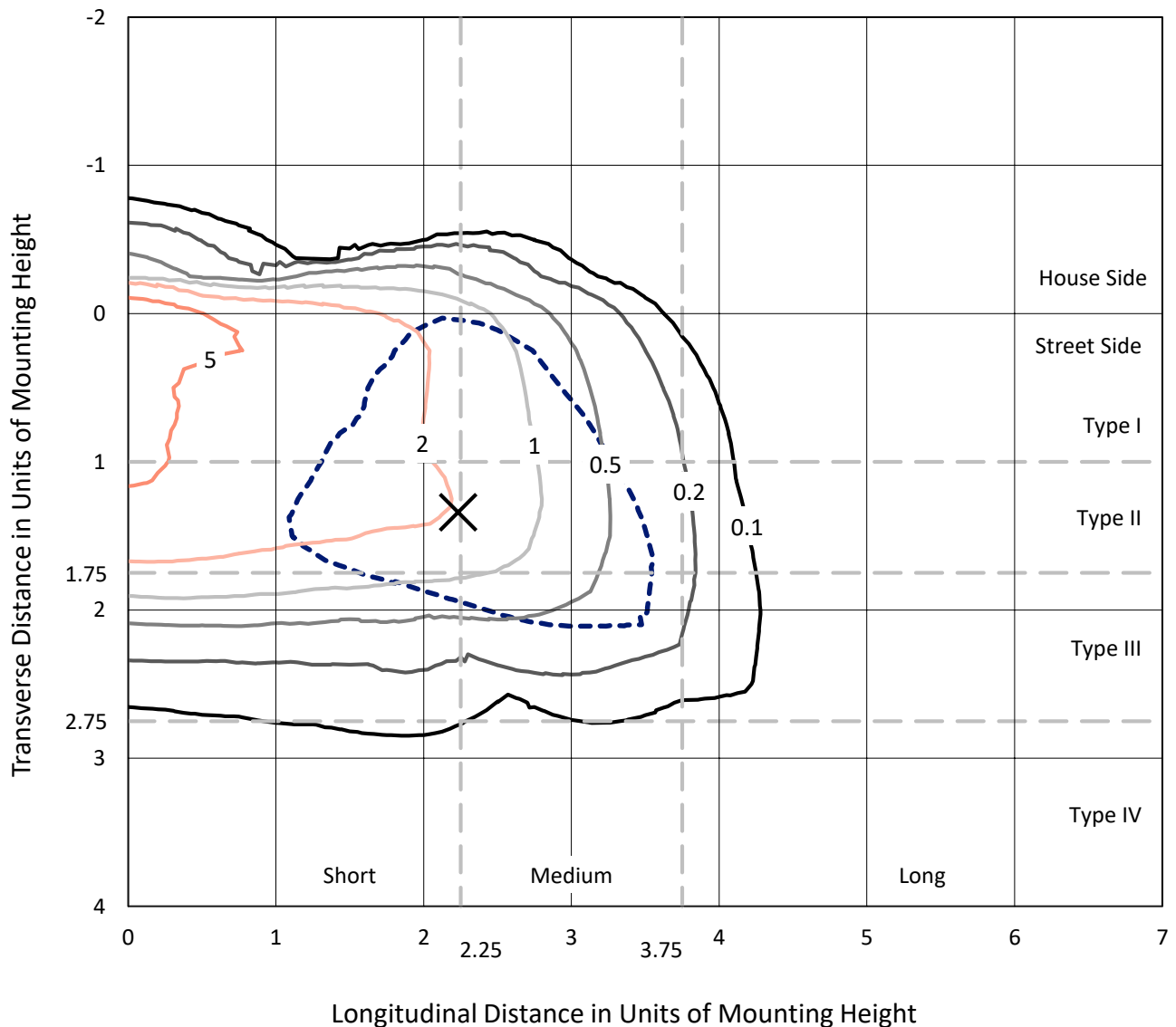


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

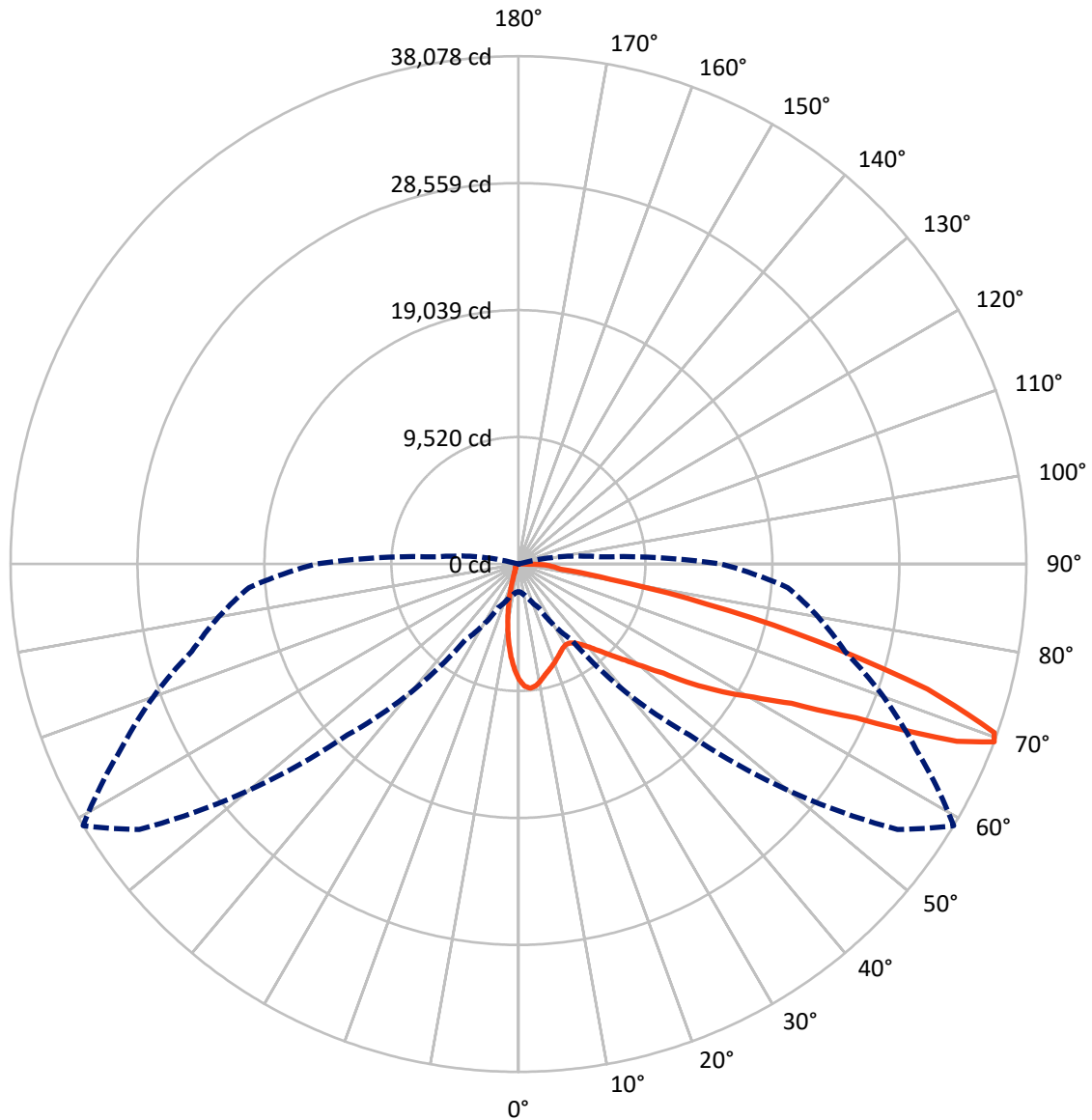


Based on 30 foot mounting height. Maximum calculated value = 9.7 fc  
 Type III - Short - Non-Cutoff

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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	2716.9	0.0	2716.9
	% Fixture	8.1	0.0	8.1
<b>Street Side</b>	Lumens	30645.7	0.0	30645.7
	% Fixture	91.9	0.0	91.9
<b>Total</b>	Lumens	33362.7	0.0	33362.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	704.9	2.1
10°-20°	1456.5	4.4
20°-30°	1959.9	5.9
30°-40°	2845.6	8.5
40°-50°	4738.1	14.2
50°-60°	7391.4	22.2
60°-70°	9146.2	27.4
70°-80°	4635.2	13.9
80°-90°	485.0	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°	33362.7	100.0
0°-180°	33362.7	100.0



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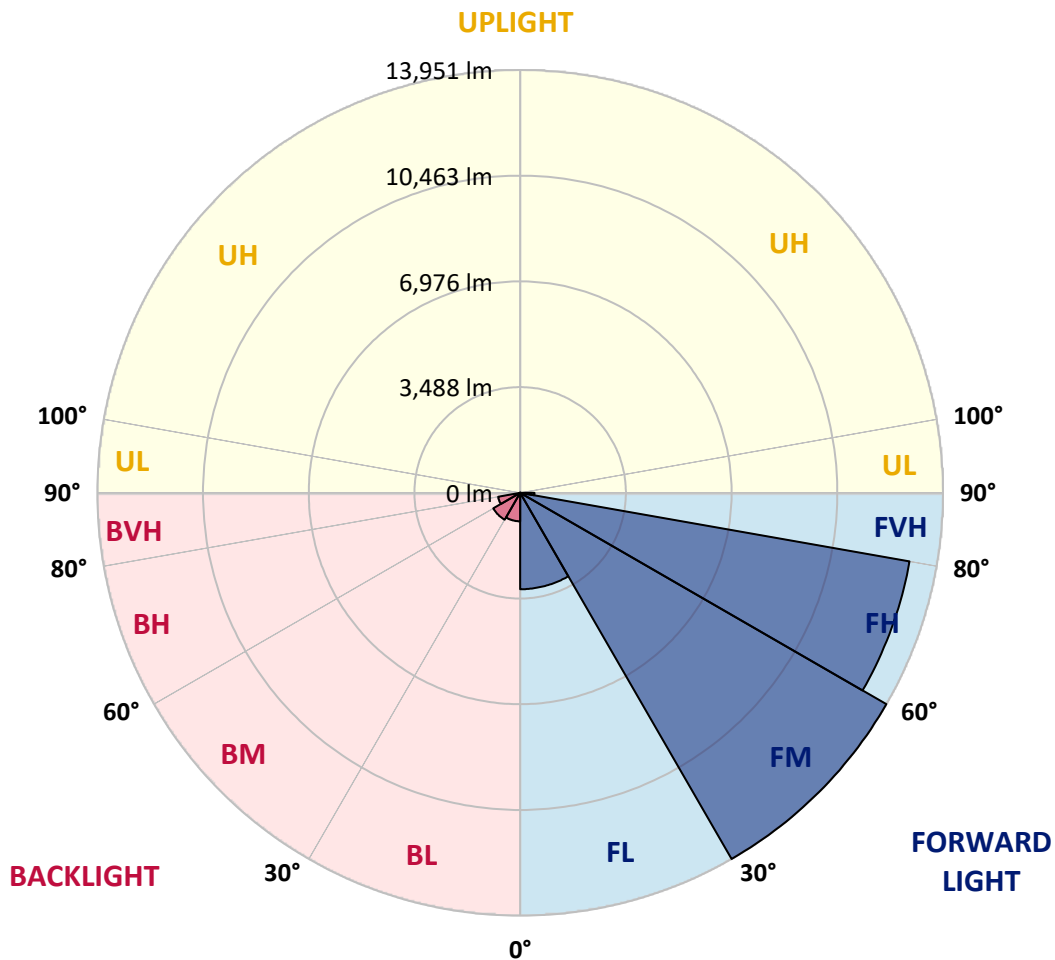
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3180.8	9.5			
FM (30°-60°)	13951.3	41.8			
FH (60°-80°)	13043.6	39.1			G5
FVH (80°-90°)	470.1	1.4			G3/500
BL (0°-30°)	940.4	2.8	B2/1000		
BM (30°-60°)	1023.7	3.1	B2/2500		
BH (60°-80°)	737.9	2.2	B2/1000		G2/1000
BVH (80°-90°)	14.9	0.0			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G5**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	8683.7	8683.7	8683.7	8683.7	8683.7	8683.7	8683.7	8683.7	8683.7	8683.7	8683.7
2.5°	9517.6	9514.2	9472.5	9453.6	9419.3	9347.9	9236.6	9178.3	9084.1	8919.6	8699.1
5°	9430.8	9476.5	9500.4	9502.7	9527.3	9500.4	9400.5	9351.9	9221.7	8957.3	8561.4
7.5°	8842.4	8859.0	8929.3	8989.2	9106.3	9217.7	9253.7	9232.6	9155.5	8872.7	8346.1
10°	8212.4	8229.0	8312.4	8391.2	8550.0	8721.4	8902.4	8940.7	8972.7	8751.6	8138.8
12.5°	7668.7	7685.8	7770.9	7874.3	8059.4	8270.7	8551.7	8614.0	8755.6	8636.8	7972.5
15°	7200.9	7208.3	7291.7	7419.6	7640.7	7912.0	8231.3	8331.2	8548.3	8555.7	7827.5
17.5°	6802.8	6821.6	6873.0	6995.2	7236.9	7572.7	7944.6	8087.9	8342.1	8487.7	7685.8
20°	6559.4	6578.3	6576.6	6644.5	6861.6	7219.7	7657.8	7829.2	8138.8	8418.1	7559.6
22.5°	6512.6	6512.6	6463.5	6453.8	6582.3	6882.2	7359.7	7568.7	7955.4	8387.8	7471.0
25°	6680.5	6672.5	6550.3	6450.3	6456.1	6634.8	7070.6	7319.7	7801.2	8408.4	7423.6
27.5°	7035.2	7025.5	6870.7	6680.5	6527.5	6525.7	6851.9	7119.8	7678.4	8506.6	7442.5
30°	7525.3	7521.9	7354.0	7114.1	6837.0	6582.3	6776.5	7019.8	7599.0	8683.7	7485.9
32.5°	8061.1	8055.4	7929.1	7676.7	7325.4	6837.0	6855.9	7059.8	7621.8	8919.6	7591.6
35°	8629.4	8619.7	8564.9	8344.4	7957.7	7306.5	7116.3	7274.6	7765.2	9272.5	7798.9
37.5°	9244.0	9253.7	9293.1	9081.8	8676.2	7965.1	7552.2	7659.5	8053.6	9751.8	8136.5
40°	10151.6	10149.9	10163.0	9885.4	9495.3	8770.5	8161.0	8195.3	8536.9	10387.5	8650.0
42.5°	11798.3	11683.5	11334.5	10768.5	10376.1	9691.2	8929.3	8893.3	9127.5	11174.0	9368.5
45°	14011.6	13766.0	12860.7	11776.0	11274.0	10729.1	9874.0	9759.2	9908.3	12119.3	10255.5
47.5°	15914.8	15660.1	14379.5	12824.7	12226.7	11713.8	10981.5	10774.2	10823.3	13177.7	11379.6
50°	16562.0	16437.4	15319.1	13738.0	13149.1	12953.2	12266.7	12013.6	11944.0	14401.7	12683.1
52.5°	16337.5	16328.3	15583.0	14330.4	13994.5	14236.1	13883.1	13590.7	13334.2	15692.6	14009.3
55°	15977.1	16024.5	15690.3	14849.0	14837.6	15407.6	16094.2	15850.8	15107.7	17094.3	15152.9
57.5°	14983.2	15184.8	15630.4	15830.3	16294.1	16877.2	17935.6	18079.0	17200.0	18167.5	16101.6
60°	12157.0	12600.2	14056.8	15971.4	18171.5	19624.1	20158.1	20280.3	18916.4	19059.7	17382.7
62.5°	8629.4	9081.8	10929.0	14168.1	18199.5	23232.8	23468.7	22987.7	20807.0	20382.6	19592.1
65°	4580.3	4929.9	6438.9	10227.0	15779.4	24070.7	29258.7	27825.1	24142.1	22983.7	22446.3
67.5°	2343.0	2448.7	3049.0	5005.3	10847.9	21380.4	34448.5	35457.8	29890.5	25564.9	22308.6
69°	2073.4	2135.6	2533.8	3618.4	6946.1	18109.3	34701.5	38078.3	32900.0	25349.6	20272.9
70°	2007.1	2062.0	2424.1	3275.1	5429.6	15186.6	33733.4	37848.1	33669.4	24531.1	18752.4
72.5°	1703.8	1750.7	2158.5	2894.2	4412.9	7538.4	27402.4	32071.8	30213.2	20435.1	13573.5
75°	1139.5	1294.3	2071.7	2713.1	4105.1	4282.7	18065.9	23176.2	21529.5	13783.2	7070.6
77.5°	273.6	294.2	584.9	2158.5	3754.4	3769.2	9291.4	14407.5	11751.5	4912.7	1671.3
80°	147.4	141.7	163.9	428.4	3495.6	3537.3	4182.8	6993.5	4195.9	815.1	550.6
82.5°	104.0	98.2	105.7	179.4	1100.1	3222.0	3026.1	3165.5	1739.2	313.0	247.3
85°	37.7	36.0	58.3	162.2	345.0	1852.3	3108.9	2610.9	1409.1	143.4	181.1
87.5°	13.1	11.4	22.8	88.5	105.7	788.8	1918.6	1973.4	554.6	86.8	85.1
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8683.7	8683.7	8683.7	8683.7	8683.7	8683.7	8683.7	8683.7	8683.7	8683.7	8683.7
2.5°	8606.5	8489.5	8274.7	8053.6	7849.7	7604.7	7481.9	7361.4	7310.5	7291.7	7203.2
5°	8357.5	8159.3	7702.9	7244.3	6821.6	6372.7	6076.8	5839.2	5699.2	5631.3	5523.9
7.5°	8038.8	7714.4	7021.5	6314.4	5655.8	5007.0	4526.0	4155.9	3901.2	3778.9	3667.6
10°	7729.2	7297.4	6312.7	5348.5	4454.1	3593.9	2929.6	2448.7	2141.4	1999.7	1909.5
12.5°	7452.2	6891.9	5627.8	4407.2	3284.3	2277.3	1601.6	1218.9	1028.1	961.9	929.9
15°	7204.9	6518.3	4980.7	3512.8	2224.2	1301.7	875.6	745.4	715.1	715.1	711.1
17.5°	6970.7	6152.2	4355.8	2673.1	1396.0	796.2	666.0	648.9	648.9	656.3	656.3
20°	6746.2	5803.2	3752.1	1918.6	879.0	631.7	602.0	598.0	602.0	611.2	611.2
22.5°	6553.7	5486.2	3188.3	1316.6	652.9	569.5	554.6	548.9	550.6	556.3	560.3
25°	6410.4	5218.3	2656.6	892.2	562.0	518.6	502.1	492.4	484.9	484.9	488.4
27.5°	6320.1	4992.1	2141.4	648.9	505.5	471.8	444.9	430.1	413.0	403.8	407.3
30°	6253.9	4776.8	1658.1	530.1	452.9	418.7	385.0	360.4	335.9	324.4	328.4
32.5°	6229.3	4603.1	1239.5	467.8	405.5	367.8	326.1	294.2	267.9	258.2	260.5
35°	6295.6	4465.5	907.6	422.7	367.8	320.4	273.6	237.6	217.0	211.3	213.1
37.5°	6469.2	4391.8	679.1	385.0	334.1	281.0	228.5	194.2	181.1	181.1	182.8
40°	6797.0	4390.1	545.5	358.7	303.9	243.3	188.5	163.9	156.5	160.5	162.2
42.5°	7276.3	4490.1	475.2	334.1	277.6	207.3	156.5	139.4	137.7	141.7	143.4
45°	7930.8	4672.8	437.5	313.0	249.0	173.6	131.9	120.5	120.5	126.2	128.5
47.5°	8732.8	4940.7	405.5	292.4	220.5	145.1	113.1	105.7	107.4	113.1	114.8
50°	9698.6	5278.9	373.6	269.6	199.9	120.5	98.2	92.5	94.2	101.7	104.0
52.5°	10798.7	5733.5	347.3	249.0	173.6	100.0	82.8	79.4	82.8	90.8	92.5
55°	11741.8	6140.8	315.3	231.9	139.4	82.8	68.0	68.0	72.0	81.1	82.8
57.5°	12649.4	6566.9	286.7	199.9	109.7	66.3	56.5	58.3	64.0	73.7	75.4
60°	13981.4	7289.4	253.0	167.9	82.8	52.5	47.4	49.1	56.5	66.3	68.0
62.5°	16243.2	8389.5	218.8	139.4	64.0	41.7	37.7	41.7	50.8	62.3	64.0
65°	18284.6	8836.7	179.4	117.1	49.1	32.0	32.0	37.7	49.1	60.5	62.3
67.5°	17146.8	7438.5	139.4	92.5	37.7	24.6	26.3	36.0	47.4	60.5	62.3
69°	15164.3	6082.5	118.8	73.7	32.0	22.8	24.6	36.0	47.4	58.3	60.5
70°	13619.2	5135.5	105.7	62.3	28.6	22.8	24.6	33.7	47.4	58.3	60.5
72.5°	9121.8	2773.1	85.1	45.1	26.3	20.6	20.6	33.7	45.1	56.5	58.3
75°	3920.0	766.0	68.0	32.0	22.8	18.8	18.8	32.0	43.4	54.8	58.3
77.5°	716.8	194.2	54.8	28.6	22.8	18.8	17.1	30.3	41.7	52.5	54.8
80°	285.0	96.0	43.4	24.6	20.6	17.1	14.9	28.6	39.4	50.8	52.5
82.5°	171.9	54.8	36.0	22.8	20.6	14.9	13.1	24.6	37.7	49.1	50.8
85°	139.4	37.7	28.6	22.8	18.8	14.9	11.4	22.8	33.7	47.4	49.1
87.5°	68.0	26.3	26.3	20.6	18.8	14.9	11.4	20.6	32.0	45.1	47.4
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)