

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-SL3-7027-800-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-10-LED-E1-SL3-7027-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 2700K 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: 32093 lumens  
Efficiency: N/A  
Efficacy: 76.6 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): 419  
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

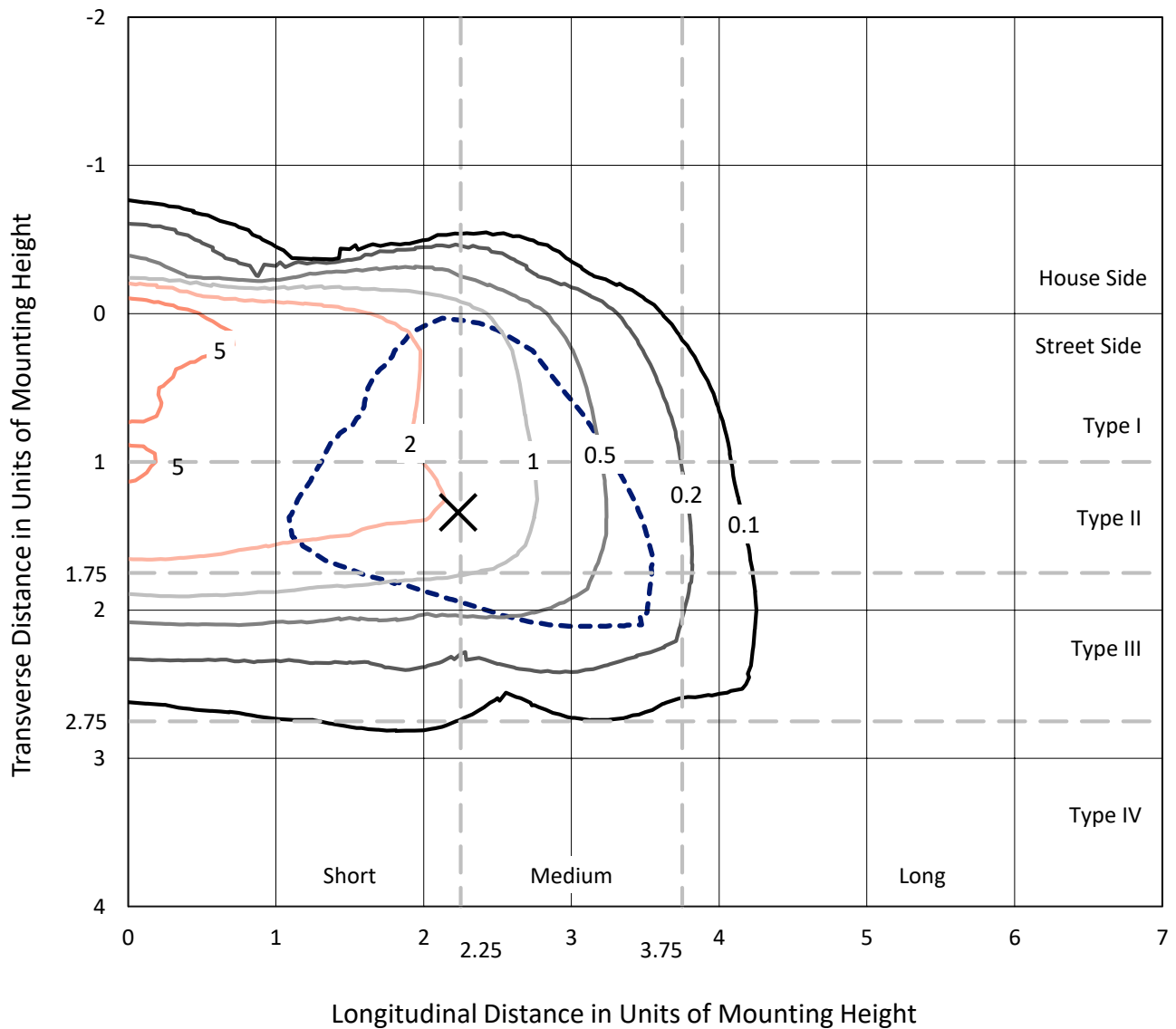


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

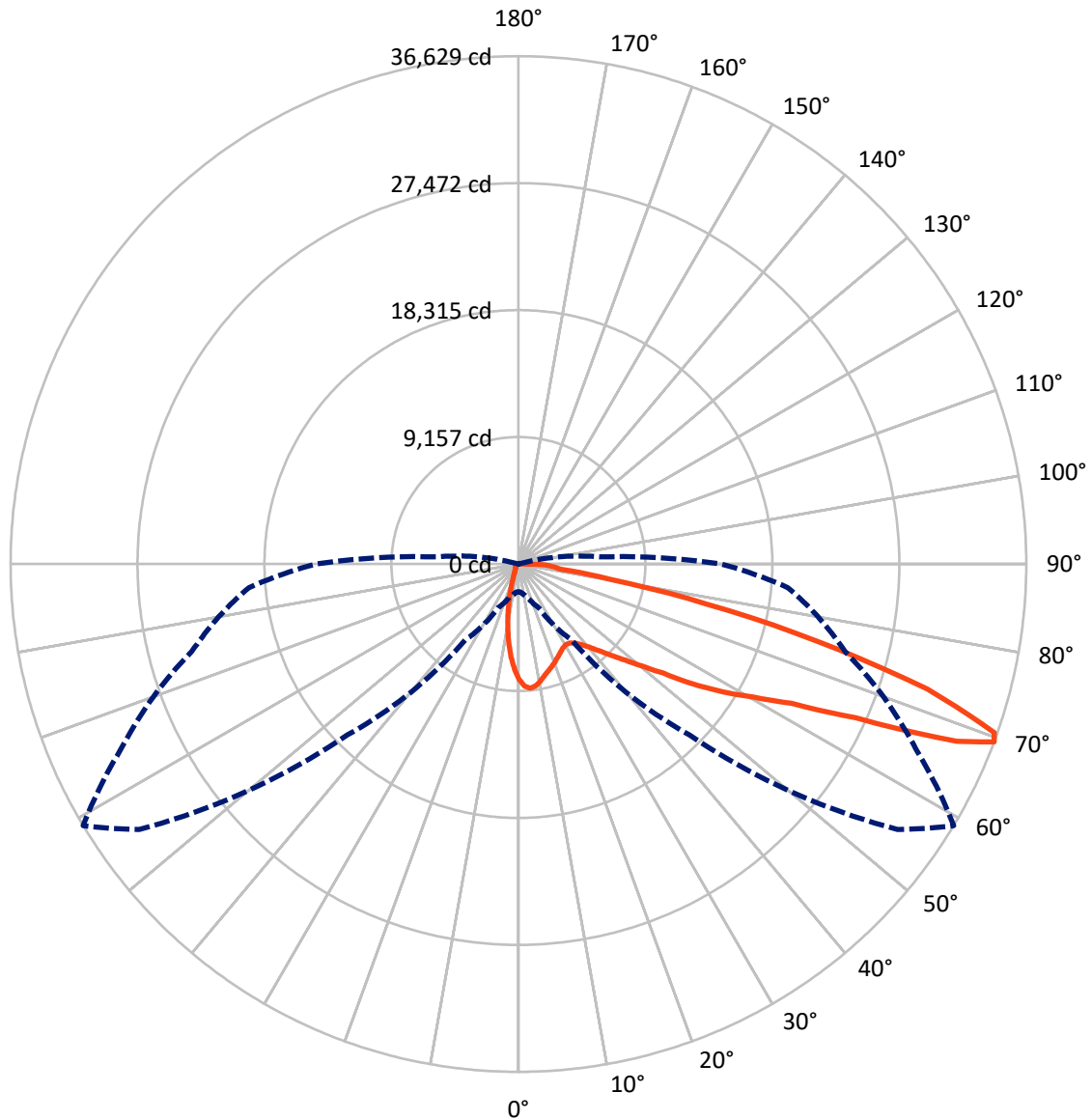


Based on 30 foot mounting height. Maximum calculated value = 9.3 fc  
 Type III - Short - Non-Cutoff

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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	2613.5	0.0	2613.5
	% Fixture	8.1	0.0	8.1
<b>Street Side</b>	Lumens	29479.5	0.0	29479.5
	% Fixture	91.9	0.0	91.9
<b>Total</b>	Lumens	32093.0	0.0	32093.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	678.0	2.1
10°-20°	1401.0	4.4
20°-30°	1885.3	5.9
30°-40°	2737.3	8.5
40°-50°	4557.8	14.2
50°-60°	7110.1	22.2
60°-70°	8798.2	27.4
70°-80°	4458.8	13.9
80°-90°	466.5	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°	32093.0	100.0
0°-180°	32093.0	100.0



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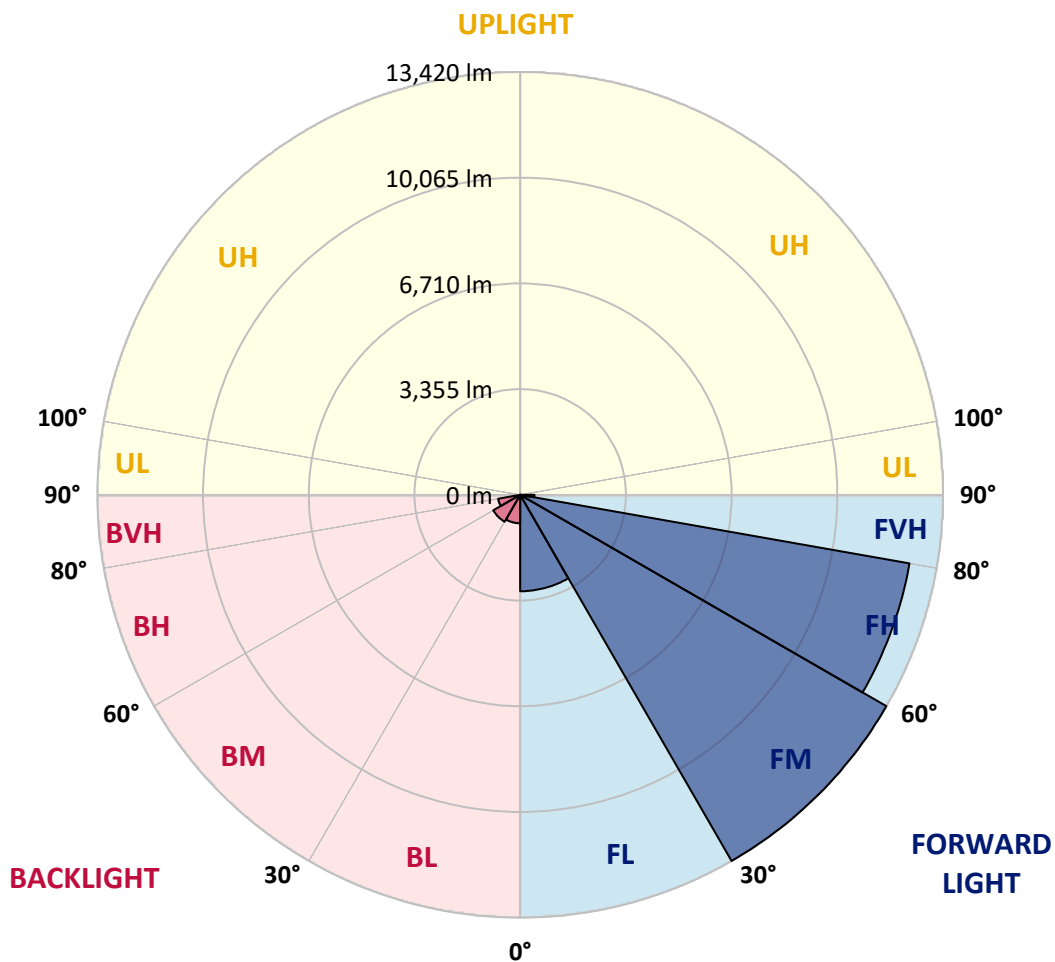
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3059.7	9.5			
FM	(30°-60°)	13420.4	41.8			
FH	(60°-80°)	12547.2	39.1			G5
FVH	(80°-90°)	452.2	1.4			G3/500
BL	(0°-30°)	904.6	2.8	B2/1000		
BM	(30°-60°)	984.8	3.1	B1/1000		
BH	(60°-80°)	709.8	2.2	B2/1000		G2/1000
BVH	(80°-90°)	14.4	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: 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°	8353.2	8353.2	8353.2	8353.2	8353.2	8353.2	8353.2	8353.2	8353.2	8353.2	8353.2
2.5°	9155.4	9152.1	9112.0	9093.8	9060.9	8992.2	8885.1	8829.0	8738.3	8580.1	8368.0
5°	9071.9	9115.8	9138.9	9141.1	9164.7	9138.9	9042.7	8996.0	8870.8	8616.4	8235.6
7.5°	8505.9	8521.9	8589.5	8647.1	8759.8	8866.9	8901.5	8881.2	8807.0	8535.1	8028.5
10°	7899.9	7915.8	7996.1	8071.9	8224.6	8389.5	8563.6	8600.4	8631.2	8418.6	7829.0
12.5°	7376.8	7393.3	7475.2	7574.6	7752.6	7955.9	8226.3	8286.2	8422.4	8308.1	7669.1
15°	6926.8	6934.0	7014.2	7137.3	7349.9	7610.9	7918.0	8014.2	8223.0	8230.1	7529.6
17.5°	6543.9	6562.0	6611.5	6729.0	6961.4	7284.5	7642.2	7780.1	8024.6	8164.7	7393.3
20°	6309.8	6327.9	6326.3	6391.7	6600.5	6945.0	7366.4	7531.2	7829.0	8097.7	7271.9
22.5°	6264.8	6264.8	6217.5	6208.2	6331.8	6620.2	7079.6	7280.7	7652.6	8068.6	7186.7
25°	6426.3	6418.6	6301.0	6204.9	6210.4	6382.3	6801.6	7041.1	7504.3	8088.4	7141.1
27.5°	6767.5	6758.2	6609.3	6426.3	6279.0	6277.4	6591.1	6848.8	7386.2	8182.9	7159.2
30°	7238.9	7235.6	7074.1	6843.3	6576.8	6331.8	6518.6	6752.7	7309.8	8353.2	7201.0
32.5°	7754.3	7748.8	7627.4	7384.5	7046.6	6576.8	6595.0	6791.1	7331.8	8580.1	7302.7
35°	8301.0	8291.7	8238.9	8026.8	7654.8	7028.5	6845.5	6997.7	7469.7	8919.7	7502.1
37.5°	8892.2	8901.5	8939.4	8736.2	8346.0	7662.0	7264.7	7368.0	7747.2	9380.6	7826.8
40°	9765.3	9763.6	9776.2	9509.2	9133.9	8436.7	7850.4	7883.4	8212.0	9992.2	8320.8
42.5°	11349.3	11238.9	10903.2	10358.7	9981.2	9322.4	8589.5	8554.8	8780.1	10748.8	9012.0
45°	13478.4	13242.1	12371.3	11327.9	10844.9	10320.7	9498.2	9387.8	9531.2	11658.1	9865.3
47.5°	15309.1	15064.1	13832.2	12336.7	11761.4	11268.0	10563.6	10364.2	10411.4	12676.2	10946.6
50°	15931.7	15811.9	14736.1	13215.2	12648.7	12460.3	11799.8	11556.4	11489.4	13853.7	12200.4
52.5°	15715.7	15706.9	14989.9	13785.0	13461.9	13694.3	13354.8	13073.5	12826.8	15095.4	13476.2
55°	15369.0	15414.6	15093.2	14283.9	14272.9	14821.2	15481.7	15247.6	14532.8	16443.7	14576.2
57.5°	14413.0	14607.0	15035.5	15227.8	15674.0	16235.0	17253.1	17391.0	16545.4	17476.1	15488.8
60°	11694.4	12120.7	13521.8	15363.5	17480.0	18877.2	19391.0	19508.5	18196.5	18334.4	16721.2
62.5°	8301.0	8736.2	10513.1	13628.9	17506.9	22348.6	22575.5	22112.9	20015.1	19606.9	18846.5
65°	4406.0	4742.2	6193.9	9837.8	15178.9	23154.6	28145.2	26766.1	23223.3	22109.1	21592.0
67.5°	2253.8	2355.5	2932.9	4814.8	10435.0	20566.8	33137.5	34108.4	28752.9	24592.0	21459.6
69°	1994.5	2054.4	2437.3	3480.7	6681.8	17420.1	33380.9	36629.2	31647.9	24384.9	19501.4
70°	1930.7	1983.5	2331.8	3150.5	5223.0	14608.6	32449.6	36407.8	32388.0	23597.5	18038.8
72.5°	1639.0	1684.0	2076.3	2784.0	4245.0	7251.6	26359.6	30851.3	29063.4	19657.4	13057.0
75°	1096.1	1245.0	1992.8	2609.9	3948.9	4119.7	17378.3	22294.2	20710.2	13258.6	6801.6
77.5°	263.2	283.0	562.6	2076.3	3611.5	3625.8	8937.8	13859.2	11304.3	4725.8	1607.7
80°	141.8	136.3	157.7	412.1	3362.6	3402.7	4023.6	6727.4	4036.2	784.1	529.7
82.5°	100.0	94.5	101.6	172.5	1058.2	3099.4	2911.0	3045.0	1673.1	301.1	237.9
85°	36.3	34.6	56.0	156.0	331.9	1781.8	2990.6	2511.5	1355.5	137.9	174.2
87.5°	12.6	11.0	22.0	85.2	101.6	758.8	1845.6	1898.3	533.5	83.5	81.9
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°	8353.2	8353.2	8353.2	8353.2	8353.2	8353.2	8353.2	8353.2	8353.2	8353.2	8353.2
2.5°	8279.0	8166.4	7959.8	7747.2	7551.0	7315.3	7197.2	7081.2	7032.3	7014.2	6929.0
5°	8039.5	7848.8	7409.8	6968.6	6562.0	6130.1	5845.5	5617.0	5482.3	5417.0	5313.7
7.5°	7732.9	7420.8	6754.3	6074.1	5440.6	4816.4	4353.8	3997.8	3752.7	3635.1	3528.0
10°	7435.1	7019.7	6072.4	5145.0	4284.6	3457.1	2818.1	2355.5	2059.9	1923.6	1836.8
12.5°	7168.6	6629.6	5413.7	4239.5	3159.3	2190.6	1540.6	1172.5	989.0	925.3	894.5
15°	6930.7	6270.2	4791.1	3379.1	2139.5	1252.2	842.3	717.0	687.9	687.9	684.1
17.5°	6705.4	5918.1	4190.1	2571.4	1342.8	765.9	640.7	624.2	624.2	631.3	631.3
20°	6489.5	5582.3	3609.3	1845.6	845.6	607.7	579.1	575.3	579.1	587.9	587.9
22.5°	6304.3	5277.4	3067.0	1266.5	628.0	547.8	533.5	528.0	529.7	535.2	539.0
25°	6166.4	5019.7	2555.5	858.2	540.7	498.9	483.0	473.6	466.5	466.5	469.8
27.5°	6079.6	4802.1	2059.9	624.2	486.3	453.8	428.0	413.7	397.2	388.5	391.8
30°	6015.9	4595.0	1595.0	509.9	435.7	402.7	370.3	346.7	323.1	312.1	315.9
32.5°	5992.2	4428.0	1192.3	450.0	390.1	353.8	313.7	283.0	257.7	248.3	250.5
35°	6056.0	4295.5	873.1	406.6	353.8	308.2	263.2	228.6	208.8	203.3	204.9
37.5°	6223.0	4224.7	653.3	370.3	321.4	270.3	219.8	186.8	174.2	174.2	175.8
40°	6538.4	4223.0	524.7	345.1	292.3	234.1	181.3	157.7	150.5	154.4	156.0
42.5°	6999.4	4319.2	457.1	321.4	267.0	199.4	150.5	134.1	132.4	136.3	137.9
45°	7629.0	4495.0	420.9	301.1	239.6	167.0	126.9	115.9	115.9	121.4	123.6
47.5°	8400.4	4752.7	390.1	281.3	212.1	139.6	108.8	101.6	103.3	108.8	110.4
50°	9329.6	5078.0	359.3	259.3	192.3	115.9	94.5	89.0	90.7	97.8	100.0
52.5°	10387.8	5515.3	334.1	239.6	167.0	96.2	79.7	76.4	79.7	87.4	89.0
55°	11294.9	5907.1	303.3	223.1	134.1	79.7	65.4	65.4	69.2	78.0	79.7
57.5°	12168.0	6317.0	275.8	192.3	105.5	63.7	54.4	56.0	61.5	70.9	72.5
60°	13449.3	7012.0	243.4	161.5	79.7	50.5	45.6	47.3	54.4	63.7	65.4
62.5°	15625.1	8070.2	210.4	134.1	61.5	40.1	36.3	40.1	48.9	59.9	61.5
65°	17588.8	8500.4	172.5	112.6	47.3	30.8	30.8	36.3	47.3	58.2	59.9
67.5°	16494.3	7155.4	134.1	89.0	36.3	23.6	25.3	34.6	45.6	58.2	59.9
69°	14587.2	5851.0	114.3	70.9	30.8	22.0	23.6	34.6	45.6	56.0	58.2
70°	13100.9	4940.0	101.6	59.9	27.5	22.0	23.6	32.4	45.6	56.0	58.2
72.5°	8774.6	2667.5	81.9	43.4	25.3	19.8	19.8	32.4	43.4	54.4	56.0
75°	3770.8	736.8	65.4	30.8	22.0	18.1	18.1	30.8	41.8	52.7	56.0
77.5°	689.6	186.8	52.7	27.5	22.0	18.1	16.5	29.1	40.1	50.5	52.7
80°	274.2	92.3	41.8	23.6	19.8	16.5	14.3	27.5	37.9	48.9	50.5
82.5°	165.4	52.7	34.6	22.0	19.8	14.3	12.6	23.6	36.3	47.3	48.9
85°	134.1	36.3	27.5	22.0	18.1	14.3	11.0	22.0	32.4	45.6	47.3
87.5°	65.4	25.3	25.3	19.8	18.1	14.3	11.0	19.8	30.8	43.4	45.6
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)