

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-08-LED-E1-SL3-7027-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-08-LED-E1-SL3-7027-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 2700K 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: 32164.9 lumens  
Efficiency: N/A  
Efficacy: 72.3 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G5  
  
Input Watts (W): 445  
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

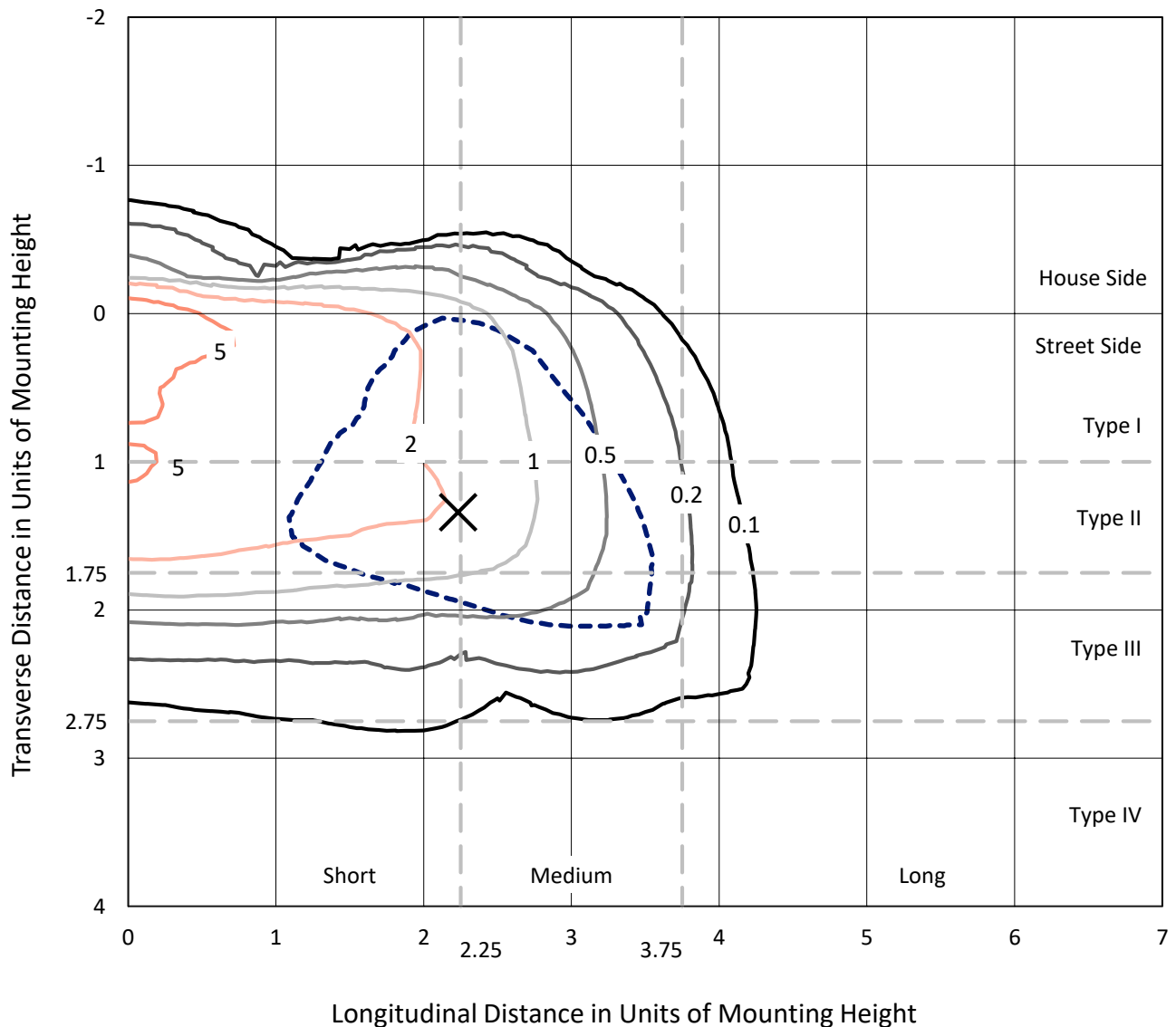


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### Iso-Footcandle Lines of Horizontal Illumination

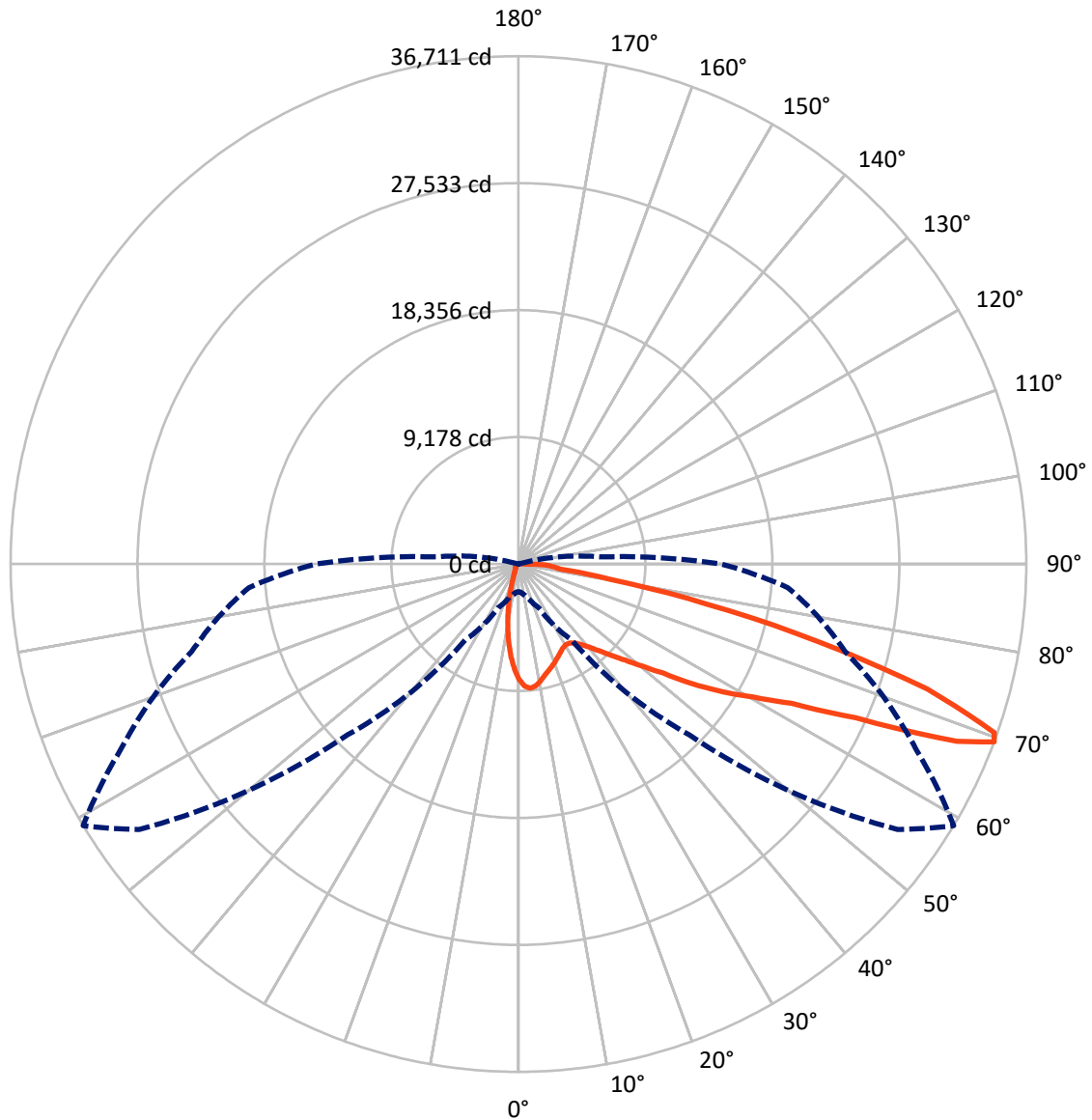
× Max cd  
 - - - 1/2 Max cd



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	2619.4	0.0	2619.4
	% Fixture	8.1	0.0	8.1
<b>Street Side</b>	Lumens	29545.6	0.0	29545.6
	% Fixture	91.9	0.0	91.9
<b>Total</b>	Lumens	32164.9	0.0	32164.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	679.6	2.1
10°-20°	1404.2	4.4
20°-30°	1889.5	5.9
30°-40°	2743.4	8.5
40°-50°	4568.0	14.2
50°-60°	7126.0	22.2
60°-70°	8817.9	27.4
70°-80°	4468.8	13.9
80°-90°	467.6	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°	32164.9	100.0
0°-180°	32164.9	100.0



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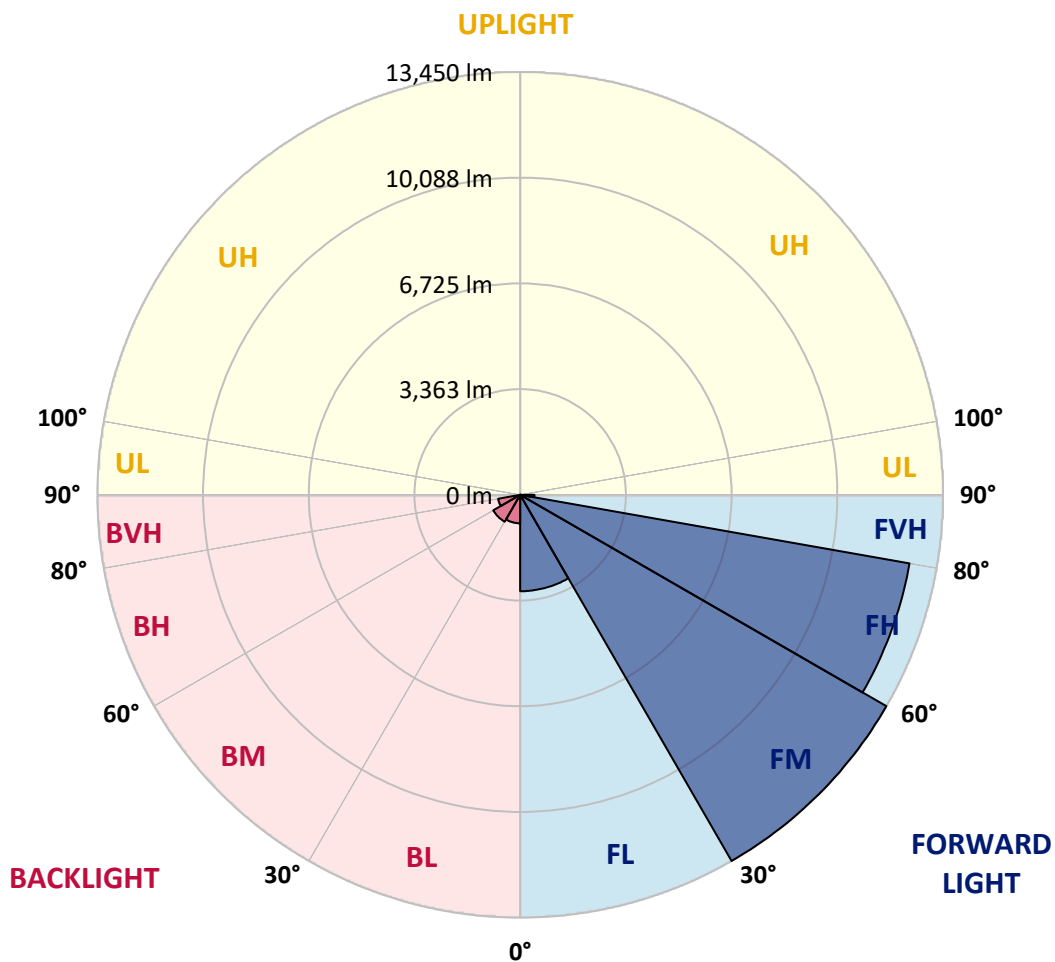
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3066.6	9.5			
FM	(30°-60°)	13450.4	41.8			
FH	(60°-80°)	12575.3	39.1			G5
FVH	(80°-90°)	453.2	1.4			G3/500
BL	(0°-30°)	906.7	2.8	B2/1000		
BM	(30°-60°)	987.0	3.1	B1/1000		
BH	(60°-80°)	711.4	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°	8371.9	8371.9	8371.9	8371.9	8371.9	8371.9	8371.9	8371.9	8371.9	8371.9	8371.9
2.5°	9175.9	9172.6	9132.4	9114.2	9081.2	9012.4	8905.0	8848.8	8757.9	8599.4	8386.8
5°	9092.2	9136.3	9159.4	9161.6	9185.3	9159.4	9063.0	9016.2	8890.7	8635.7	8254.1
7.5°	8525.0	8541.0	8608.7	8666.5	8779.4	8886.8	8921.5	8901.1	8826.8	8554.2	8046.5
10°	7917.6	7933.6	8014.0	8090.0	8243.1	8408.3	8582.8	8619.7	8650.6	8437.5	7846.6
12.5°	7393.4	7409.9	7491.9	7591.6	7770.0	7973.8	8244.7	8304.7	8441.3	8326.8	7686.3
15°	6942.4	6949.5	7029.9	7153.3	7366.4	7628.0	7935.8	8032.2	8241.4	8248.6	7546.5
17.5°	6558.5	6576.7	6626.3	6744.1	6977.1	7300.9	7659.3	7797.6	8042.6	8183.0	7409.9
20°	6324.0	6342.1	6340.5	6406.0	6615.3	6960.5	7382.9	7548.1	7846.6	8115.9	7288.2
22.5°	6278.8	6278.8	6231.4	6222.1	6346.0	6635.1	7095.5	7297.0	7669.8	8086.7	7202.8
25°	6440.7	6433.0	6315.1	6218.8	6224.3	6396.6	6816.8	7056.9	7521.1	8106.5	7157.1
27.5°	6782.7	6773.3	6624.1	6440.7	6293.1	6291.5	6605.9	6864.2	7402.7	8201.2	7175.3
30°	7255.2	7251.8	7089.9	6858.7	6591.6	6346.0	6533.2	6767.8	7326.2	8371.9	7217.2
32.5°	7771.7	7766.2	7644.5	7401.1	7062.4	6591.6	6609.8	6806.4	7348.2	8599.4	7319.0
35°	8319.6	8310.2	8257.4	8044.8	7672.0	7044.2	6860.9	7013.4	7486.4	8939.7	7518.9
37.5°	8912.1	8921.5	8959.5	8755.7	8364.8	7679.2	7281.0	7384.6	7764.5	9401.7	7844.4
40°	9787.2	9785.5	9798.2	9530.5	9154.4	8455.6	7868.1	7901.1	8230.4	10014.6	8339.4
42.5°	11374.8	11264.1	10927.6	10381.9	10003.6	9343.3	8608.7	8574.0	8799.8	10772.9	9032.2
45°	13508.6	13271.8	12399.0	11353.3	10869.2	10343.9	9519.5	9408.8	9552.6	11684.2	9887.4
47.5°	15343.5	15097.9	13863.3	12364.3	11787.8	11293.3	10587.3	10387.4	10434.8	12704.6	10971.1
50°	15967.4	15847.3	14769.1	13244.9	12677.1	12488.2	11826.3	11582.4	11515.2	13884.7	12227.8
52.5°	15751.0	15742.2	15023.5	13815.9	13492.1	13725.0	13384.7	13102.8	12855.5	15129.3	13506.4
55°	15403.5	15449.2	15127.1	14315.9	14304.9	14854.5	15516.4	15281.8	14565.4	16480.6	14608.9
57.5°	14445.3	14639.7	15069.2	15262.0	15709.1	16271.4	17291.8	17430.0	16582.5	17515.3	15523.5
60°	11720.6	12147.9	13552.1	15398.0	17519.2	18919.6	19434.4	19552.3	18237.3	18375.5	16758.7
62.5°	8319.6	8755.7	10536.6	13659.5	17546.2	22398.7	22626.2	22162.5	20060.0	19650.9	18888.7
65°	4415.9	4752.9	6207.8	9859.8	15213.0	23206.6	28208.4	26826.2	23275.4	22158.6	21640.5
67.5°	2258.9	2360.7	2939.5	4825.6	10458.4	20612.9	33211.8	34184.8	28817.4	24647.1	21507.7
69°	1999.0	2059.0	2442.8	3488.5	6696.8	17459.2	33455.7	36711.3	31718.9	24439.5	19545.1
70°	1935.1	1987.9	2337.1	3157.6	5234.7	14641.4	32522.4	36489.4	32460.7	23650.4	18079.2
72.5°	1642.7	1687.8	2081.0	2790.3	4254.5	7267.8	26418.7	30920.4	29128.5	19701.5	13086.3
75°	1098.6	1247.8	1997.3	2615.7	3957.7	4129.0	17417.3	22344.2	20756.6	13288.4	6816.8
77.5°	263.8	283.6	563.9	2081.0	3619.6	3633.9	8957.8	13890.2	11329.6	4736.4	1611.3
80°	142.1	136.6	158.0	413.0	3370.1	3410.3	4032.6	6742.5	4045.3	785.8	530.9
82.5°	100.2	94.7	101.9	172.9	1060.6	3106.4	2917.5	3051.8	1676.8	301.8	238.4
85°	36.3	34.7	56.2	156.4	332.6	1785.8	2997.3	2517.1	1358.5	138.2	174.6
87.5°	12.7	11.0	22.0	85.4	101.9	760.5	1849.7	1902.6	534.7	83.7	82.1
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°	8371.9	8371.9	8371.9	8371.9	8371.9	8371.9	8371.9	8371.9	8371.9	8371.9	8371.9
2.5°	8297.6	8184.7	7977.6	7764.5	7567.9	7331.7	7213.3	7097.1	7048.1	7029.9	6944.6
5°	8057.5	7866.4	7426.4	6984.2	6576.7	6143.9	5858.6	5629.6	5494.6	5429.1	5325.6
7.5°	7750.2	7437.4	6769.5	6087.7	5452.8	4827.2	4363.6	4006.7	3761.1	3643.3	3535.9
10°	7451.7	7035.4	6086.1	5156.5	4294.2	3464.9	2824.4	2360.7	2064.5	1927.9	1840.9
12.5°	7184.7	6644.5	5425.8	4249.0	3166.4	2195.5	1544.1	1175.1	991.2	927.3	896.5
15°	6946.2	6284.3	4801.9	3386.7	2144.3	1255.0	844.2	718.6	689.4	689.4	685.6
17.5°	6720.4	5931.3	4199.5	2577.2	1345.9	767.6	642.1	625.6	625.6	632.7	632.7
20°	6504.0	5594.9	3617.4	1849.7	847.5	609.0	580.4	576.6	580.4	589.2	589.2
22.5°	6318.5	5289.2	3073.9	1269.3	629.4	549.0	534.7	529.2	530.9	536.4	540.2
25°	6180.2	5031.0	2561.2	860.2	541.9	500.0	484.0	474.7	467.5	467.5	470.8
27.5°	6093.2	4812.9	2064.5	625.6	487.3	454.9	429.0	414.7	398.1	389.3	392.6
30°	6029.3	4605.3	1598.6	511.0	436.7	403.6	371.2	347.5	323.8	312.8	316.6
32.5°	6005.7	4437.9	1195.0	451.0	391.0	354.6	314.4	283.6	258.3	248.9	251.1
35°	6069.5	4305.2	875.0	407.5	354.6	308.9	263.8	229.1	209.3	203.7	205.4
37.5°	6237.0	4234.1	654.8	371.2	322.1	270.9	220.3	187.2	174.6	174.6	176.2
40°	6553.0	4232.5	525.9	345.8	293.0	234.6	181.7	158.0	150.9	154.7	156.4
42.5°	7015.1	4328.9	458.2	322.1	267.6	199.9	150.9	134.4	132.7	136.6	138.2
45°	7646.1	4505.1	421.8	301.8	240.1	167.4	127.2	116.2	116.2	121.7	123.9
47.5°	8419.3	4763.3	391.0	281.9	212.6	139.9	109.0	101.9	103.5	109.0	110.7
50°	9350.5	5089.3	360.1	259.9	192.7	116.2	94.7	89.2	90.9	98.0	100.2
52.5°	10411.1	5527.7	334.8	240.1	167.4	96.4	79.8	76.5	79.8	87.6	89.2
55°	11320.2	5920.3	304.0	223.6	134.4	79.8	65.5	65.5	69.4	78.2	79.8
57.5°	12195.3	6331.1	276.4	192.7	105.7	63.9	54.5	56.2	61.7	71.0	72.7
60°	13479.4	7027.7	243.9	161.9	79.8	50.7	45.7	47.4	54.5	63.9	65.5
62.5°	15660.1	8088.3	210.9	134.4	61.7	40.2	36.3	40.2	49.0	60.0	61.7
65°	17628.2	8519.5	172.9	112.9	47.4	30.8	30.8	36.3	47.4	58.4	60.0
67.5°	16531.3	7171.4	134.4	89.2	36.3	23.7	25.3	34.7	45.7	58.4	60.0
69°	14619.9	5864.1	114.5	71.0	30.8	22.0	23.7	34.7	45.7	56.2	58.4
70°	13130.3	4951.1	101.9	60.0	27.5	22.0	23.7	32.5	45.7	56.2	58.4
72.5°	8794.3	2673.5	82.1	43.5	25.3	19.8	19.8	32.5	43.5	54.5	56.2
75°	3779.3	738.5	65.5	30.8	22.0	18.2	18.2	30.8	41.9	52.9	56.2
77.5°	691.1	187.2	52.9	27.5	22.0	18.2	16.5	29.2	40.2	50.7	52.9
80°	274.8	92.5	41.9	23.7	19.8	16.5	14.3	27.5	38.0	49.0	50.7
82.5°	165.8	52.9	34.7	22.0	19.8	14.3	12.7	23.7	36.3	47.4	49.0
85°	134.4	36.3	27.5	22.0	18.2	14.3	11.0	22.0	32.5	45.7	47.4
87.5°	65.5	25.3	25.3	19.8	18.2	14.3	11.0	19.8	30.8	43.5	45.7
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)