

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: P300894

Luminaire Tested: **GLNA-AF-10-LED-E1-SL4-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300894  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
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-SL4-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

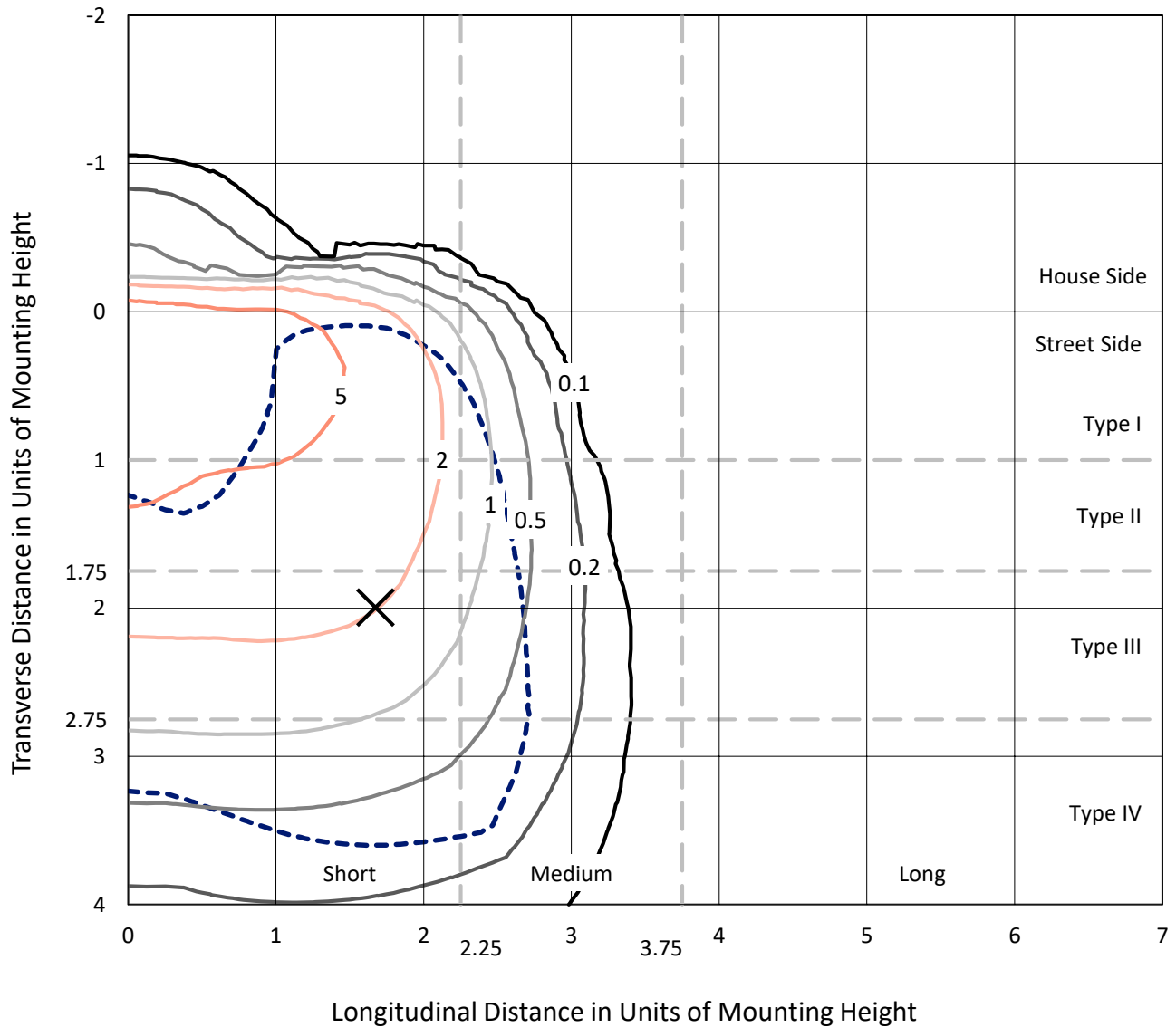
Lumens per Lamp: N/A  
Luminaire Lumens: 48470.8 lumens  
Efficiency: N/A  
Efficacy: 86.9 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G5  
  
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (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

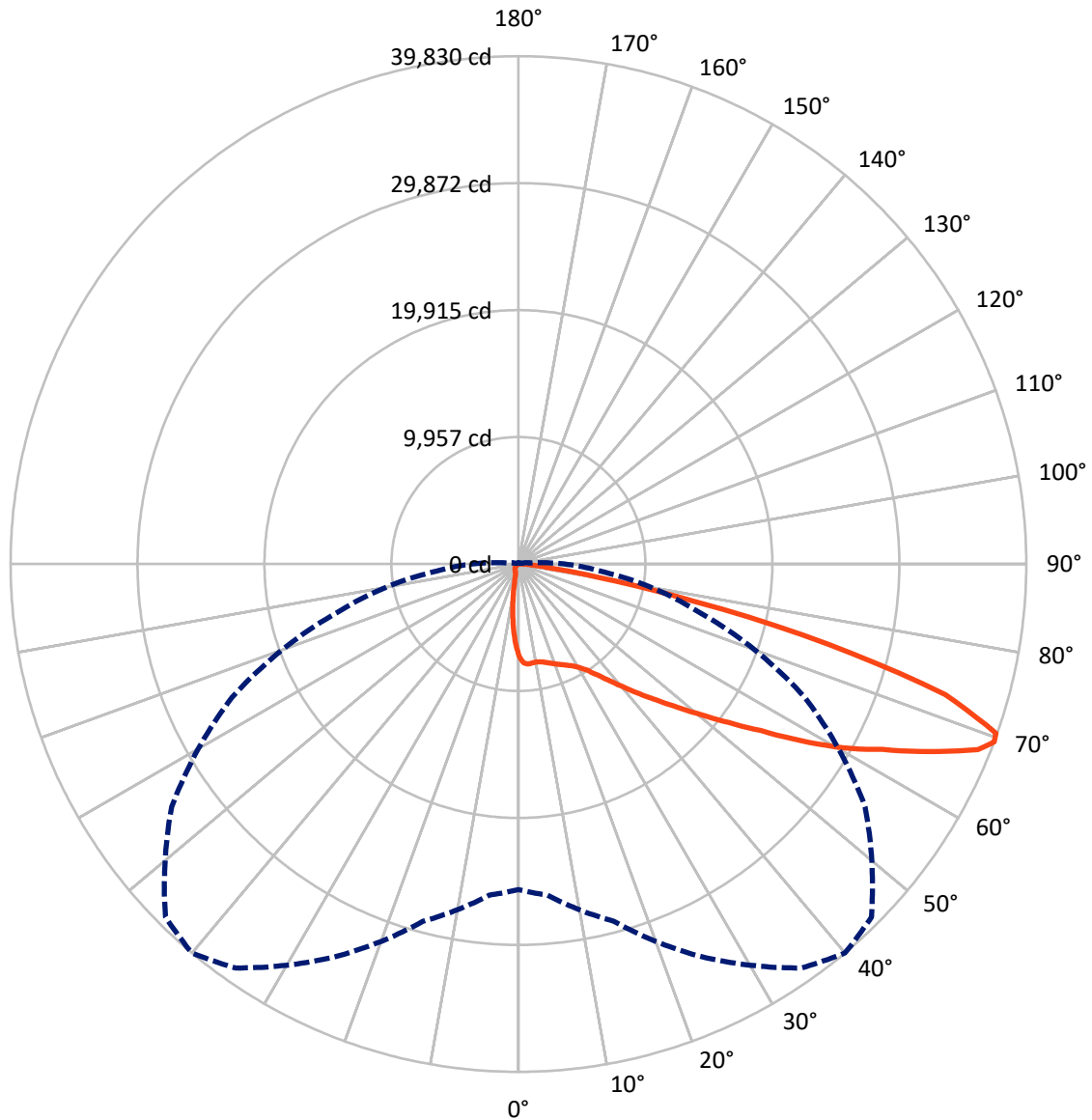
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.8 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2835.8	0.0	2835.8
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	45635.0	0.0	45635.0
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	48470.8	0.0	48470.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	587.2	1.2
10°-20°	1443.9	3.0
20°-30°	2432.1	5.0
30°-40°	3981.4	8.2
40°-50°	6893.7	14.2
50°-60°	10858.3	22.4
60°-70°	14180.5	29.3
70°-80°	7303.6	15.1
80°-90°	790.0	1.6
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°	48470.8	100.0
0°-180°	48470.8	100.0

**Coefficient of Utilization**



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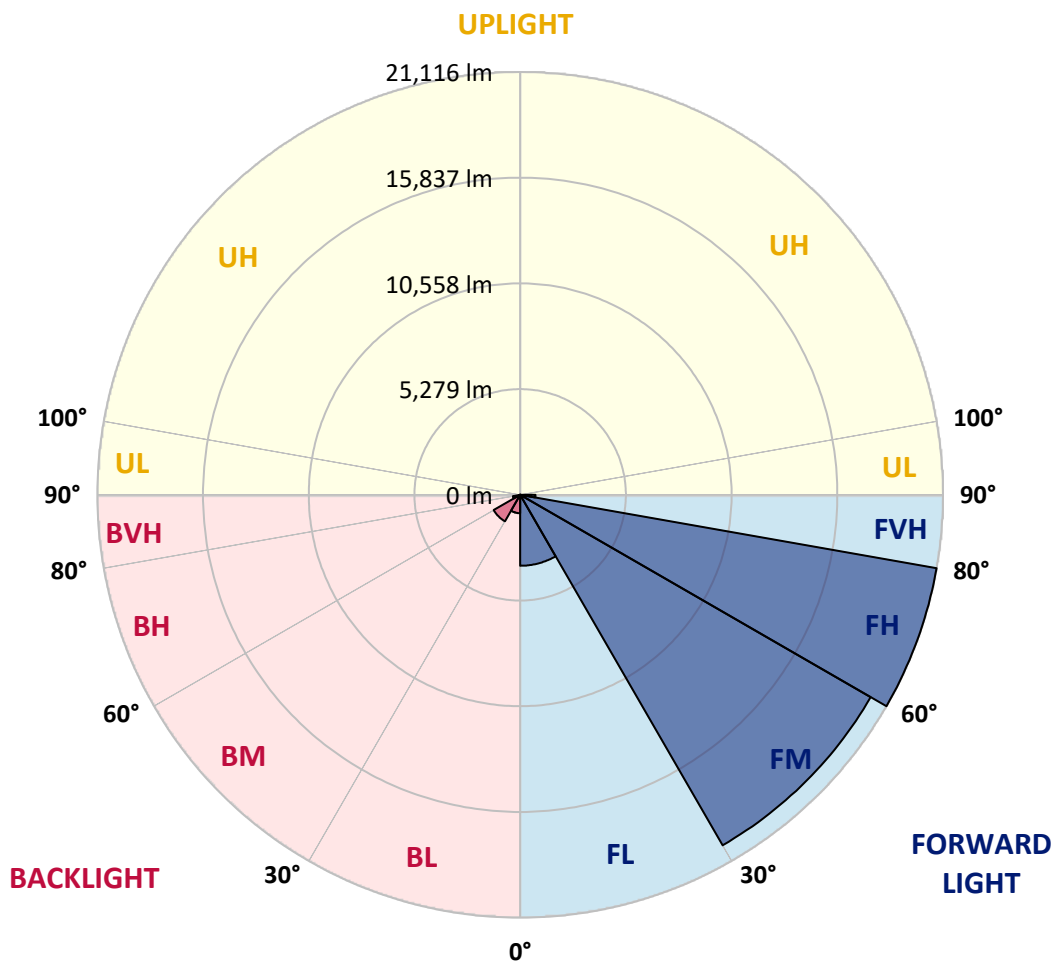
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3544.6	7.3			
FM	(30°-60°)	20209.3	41.7			
FH	(60°-80°)	21115.9	43.6			G5
FVH	(80°-90°)	765.2	1.6			G5
BL	(0°-30°)	918.6	1.9	B2/1000		
BM	(30°-60°)	1524.2	3.1	B2/2500		
BH	(60°-80°)	368.2	0.8	B1/500		G1/500
BVH	(80°-90°)	24.8	0.1			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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	7241.8	7241.8	7241.8	7241.8	7241.8	7241.8	7241.8	7241.8	7241.8	7241.8	7241.8
2.5°	7951.5	7908.3	7882.3	7847.7	7804.4	7766.9	7752.5	7645.7	7544.7	7406.2	7247.6
5°	8098.7	8084.3	8038.1	7991.9	7940.0	7882.3	7850.6	7723.6	7579.3	7377.4	7100.4
7.5°	8113.1	8095.8	8038.1	7974.6	7902.5	7833.2	7778.4	7651.5	7518.8	7313.9	6976.3
10°	8090.0	8069.8	8026.6	7957.3	7867.9	7801.5	7746.7	7625.5	7513.0	7328.3	6953.3
12.5°	8064.1	8043.9	8023.7	7989.0	7911.1	7865.0	7818.8	7703.4	7602.4	7446.6	7036.9
15°	8090.0	8078.5	8101.6	8087.1	8043.9	8003.5	7957.3	7853.4	7761.1	7631.3	7189.9
17.5°	8199.7	8199.7	8271.8	8280.4	8240.1	8182.4	8116.0	8012.1	7934.2	7824.6	7371.6
20°	8456.4	8447.8	8540.1	8557.4	8459.3	8369.9	8271.8	8144.8	8084.3	8015.0	7550.5
22.5°	8897.9	8857.5	8912.3	8895.0	8701.7	8563.2	8442.0	8286.2	8254.5	8222.7	7749.6
25°	9472.0	9448.9	9486.4	9316.2	8975.8	8788.2	8644.0	8468.0	8468.0	8499.7	7974.6
27.5°	10305.8	10219.3	10092.3	9792.3	9281.6	9042.1	8886.3	8698.8	8747.8	8866.1	8271.8
30°	11159.8	11064.6	10773.2	10311.6	9653.8	9402.8	9221.0	9024.8	9140.2	9356.6	8669.9
32.5°	12002.3	11895.6	11483.0	10900.2	10187.5	9936.5	9760.5	9544.2	9737.5	10101.0	9252.8
35°	12818.8	12723.6	12247.6	11560.9	10897.3	10689.6	10528.0	10340.5	10588.6	11096.4	10075.0
37.5°	13736.3	13632.4	13052.5	12308.1	11760.0	11609.9	11491.6	11304.1	11736.9	12481.3	11220.4
40°	14864.4	14688.4	13906.5	13165.0	12758.2	12686.1	12605.3	12579.4	13251.6	14281.6	12746.7
42.5°	16157.0	15868.5	14800.9	14068.1	13854.6	13906.5	13886.3	14001.7	15147.2	16520.5	14604.7
45°	17449.5	17077.3	15796.3	15031.8	15060.6	15242.4	15354.9	15816.5	17521.7	19088.3	16604.2
47.5°	18545.9	18179.5	16751.3	16073.3	16419.5	16777.3	17083.1	17957.3	19962.5	21615.7	18159.3
50°	19483.6	19137.4	17764.0	17218.7	17997.7	18574.7	19071.0	20366.4	22588.0	23540.1	19249.9
52.5°	20251.0	20020.2	18814.2	18531.5	19800.9	20646.3	21373.4	22925.6	24913.5	25103.9	20098.1
55°	20998.3	20833.8	19942.3	20092.3	21918.7	23069.8	23990.2	25640.5	26915.8	26408.0	20911.7
57.5°	21858.1	21708.0	21229.1	22071.6	24702.9	26151.2	27155.2	28046.8	28678.6	27740.9	21679.2
60°	22735.2	22648.6	22660.1	24270.1	27899.6	29290.3	29844.2	30075.0	30409.7	28996.0	21722.5
62.5°	23571.9	23736.3	24296.0	26716.7	30960.8	32028.3	32308.2	32536.1	32143.7	29195.1	20069.3
65°	24988.5	25256.8	26592.6	29991.4	34327.8	35470.3	35758.8	34977.0	32417.8	26621.5	16324.3
67.5°	25680.9	26171.4	28554.6	33043.9	37593.8	38863.3	38756.5	35135.6	29091.2	20300.1	10476.1
69°	25536.7	26058.9	29007.5	33978.7	38678.6	39829.8	39151.8	33193.9	24783.6	14705.7	6431.1
70°	24965.4	25493.4	28773.8	33944.1	38817.1	39728.8	38419.0	30796.3	20955.0	10753.0	4021.9
72.5°	20848.3	21304.1	25545.3	30680.9	35758.8	35017.3	32140.8	21335.9	10210.6	2928.5	905.9
75°	12833.3	13087.1	18329.5	23113.1	27008.1	25103.9	21413.8	10614.6	3043.9	828.0	502.0
77.5°	6780.2	6895.6	10034.6	13623.8	17120.6	14166.2	10975.2	4140.2	1402.2	519.3	363.5
80°	4007.5	4094.1	5403.9	6229.1	7409.1	6188.7	4388.3	2541.8	1004.0	326.0	323.1
82.5°	2293.7	2348.5	3918.1	3462.2	2919.8	2492.8	2184.1	2409.1	603.0	219.3	334.7
85°	842.5	854.0	2204.3	2634.2	1736.9	1032.9	1084.8	1996.5	161.6	138.5	262.6
87.5°	392.4	383.7	1133.9	1612.8	1015.6	654.9	845.4	438.5	63.5	89.4	72.1
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°	7241.8	7241.8	7241.8	7241.8	7241.8	7241.8	7241.8	7241.8	7241.8	7241.8	7241.8
2.5°	7155.2	7048.5	6855.2	6656.1	6454.1	6298.3	6145.4	6024.2	5983.8	5908.8	5914.6
5°	6936.0	6739.8	6335.8	5926.1	5499.1	5147.1	4815.4	4547.0	4417.2	4284.5	4284.5
7.5°	6745.5	6459.9	5828.0	5161.6	4472.0	3892.1	3369.9	2977.5	2761.1	2588.0	2585.1
10°	6673.4	6286.8	5403.9	4448.9	3488.2	2697.6	2077.3	1679.2	1474.3	1341.6	1335.8
12.5°	6705.1	6226.2	5077.9	3791.1	2585.1	1734.0	1203.1	946.3	859.8	819.4	819.4
15°	6797.5	6208.9	4751.9	3147.7	1826.3	1084.8	799.2	729.9	724.2	724.2	724.2
17.5°	6910.0	6214.7	4417.2	2521.6	1243.5	776.1	689.6	680.9	686.7	686.7	686.7
20°	7025.4	6217.5	4056.6	1941.7	877.1	675.1	649.2	646.3	652.0	652.0	654.9
22.5°	7166.8	6232.0	3695.9	1451.2	724.2	637.6	617.4	617.4	620.3	620.3	617.4
25°	7328.3	6260.8	3320.8	1076.2	660.7	611.7	594.3	591.5	594.3	591.5	588.6
27.5°	7530.3	6301.2	2902.5	842.5	631.9	585.7	571.3	571.3	568.4	565.5	562.6
30°	7784.2	6347.4	2432.2	715.5	603.0	562.6	548.2	545.3	542.4	536.6	536.6
32.5°	8170.8	6448.4	1967.7	649.2	571.3	530.9	519.3	519.3	513.6	507.8	504.9
35°	8765.2	6647.4	1552.2	608.8	536.6	496.2	481.8	481.8	476.1	473.2	470.3
37.5°	9587.4	6950.4	1206.0	571.3	502.0	458.7	444.3	441.4	435.7	429.9	427.0
40°	10680.9	7325.5	949.2	536.6	467.4	421.2	409.7	403.9	392.4	383.7	383.7
42.5°	12054.3	7752.5	770.3	499.1	427.0	386.6	378.0	369.3	349.1	340.5	337.6
45°	13491.1	8136.2	652.0	455.9	386.6	352.0	346.2	331.8	305.8	297.2	297.2
47.5°	14526.8	8225.6	574.1	415.5	349.1	314.5	311.6	285.6	262.6	256.8	253.9
50°	15173.1	8049.6	510.7	375.1	314.5	279.9	271.2	239.5	225.0	219.3	216.4
52.5°	15608.8	7735.1	458.7	340.5	282.7	248.1	227.9	204.8	193.3	187.5	187.5
55°	15957.9	7290.8	406.8	308.7	256.8	222.2	193.3	176.0	164.5	158.7	158.7
57.5°	16056.0	6687.8	354.9	282.7	230.8	196.2	164.5	152.9	138.5	135.6	135.6
60°	15343.4	5600.1	314.5	251.0	207.7	170.2	144.3	129.8	115.4	112.5	109.6
62.5°	13465.1	4333.5	277.0	222.2	181.8	147.1	124.1	106.8	95.2	95.2	95.2
65°	10271.2	2905.4	242.4	193.3	158.7	124.1	106.8	86.6	80.8	80.8	83.7
67.5°	6148.3	1581.1	207.7	164.5	135.6	103.9	89.4	75.0	72.1	75.0	75.0
69°	3603.6	929.0	187.5	147.1	118.3	92.3	77.9	66.4	72.1	75.0	75.0
70°	2224.5	626.1	173.1	132.7	106.8	83.7	72.1	63.5	69.2	72.1	72.1
72.5°	620.3	323.1	138.5	103.9	86.6	69.2	57.7	57.7	66.4	69.2	69.2
75°	403.9	239.5	106.8	77.9	66.4	54.8	49.0	54.8	63.5	66.4	66.4
77.5°	334.7	196.2	86.6	63.5	54.8	51.9	46.2	49.0	57.7	60.6	60.6
80°	305.8	138.5	69.2	57.7	49.0	46.2	43.3	40.4	51.9	54.8	54.8
82.5°	291.4	109.6	60.6	51.9	46.2	40.4	37.5	40.4	46.2	49.0	51.9
85°	181.8	72.1	54.8	49.0	40.4	37.5	37.5	37.5	43.3	46.2	46.2
87.5°	66.4	57.7	49.0	40.4	34.6	34.6	34.6	34.6	37.5	43.3	43.3
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)