

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: P453824

Luminaire Tested: **GALN-SA4D-827-U-SL3**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453824  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-16)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4D-827-U-SL3  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22298 lumens  
Efficiency: N/A  
Efficacy: 91.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U0 - G4

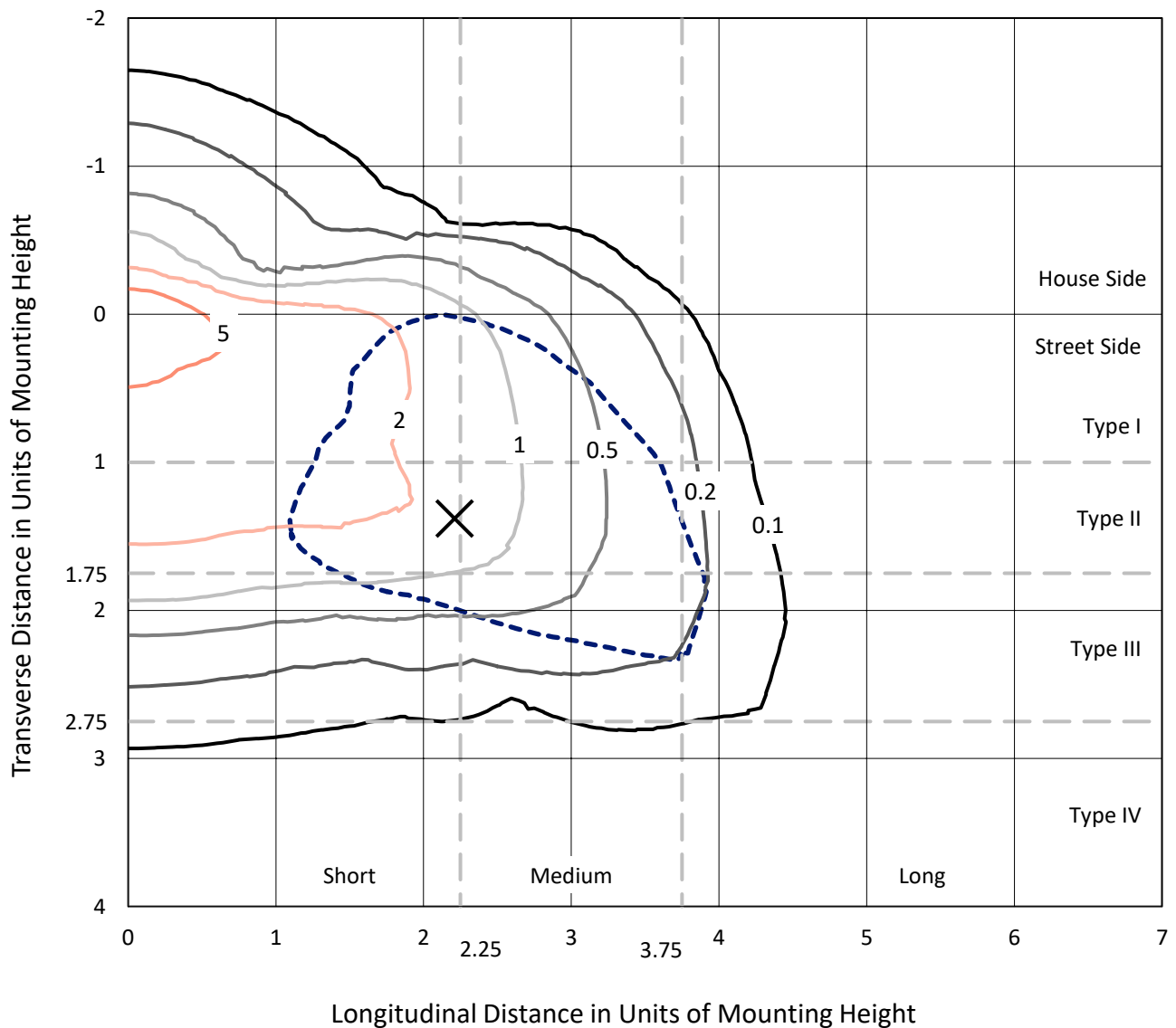
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

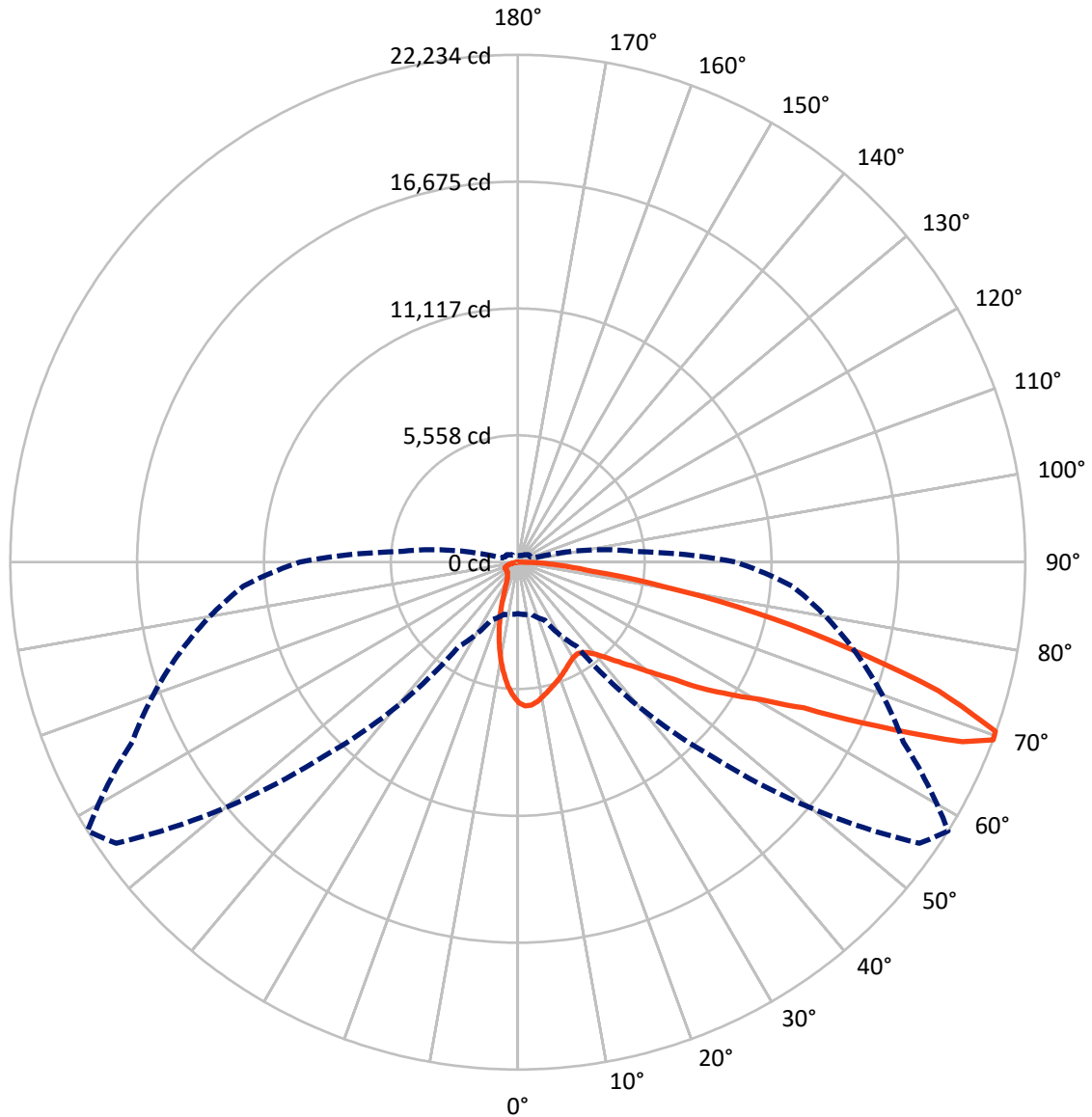
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.9 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3267.8	0.0	3267.8
	% Fixture	14.7	0.0	14.7
<b>Street Side</b>	Lumens	19030.2	0.0	19030.2
	% Fixture	85.3	0.0	85.3
<b>Total</b>	Lumens	22298.0	0.0	22298.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	523.3	2.3
10°-20°	1149.1	5.2
20°-30°	1484.6	6.7
30°-40°	1928.2	8.6
40°-50°	2803.3	12.6
50°-60°	4473.2	20.1
60°-70°	5975.6	26.8
70°-80°	3444.7	15.4
80°-90°	515.9	2.3
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°	22298.0	100.0
0°-180°	22298.0	100.0

**Coefficient of Utilization**



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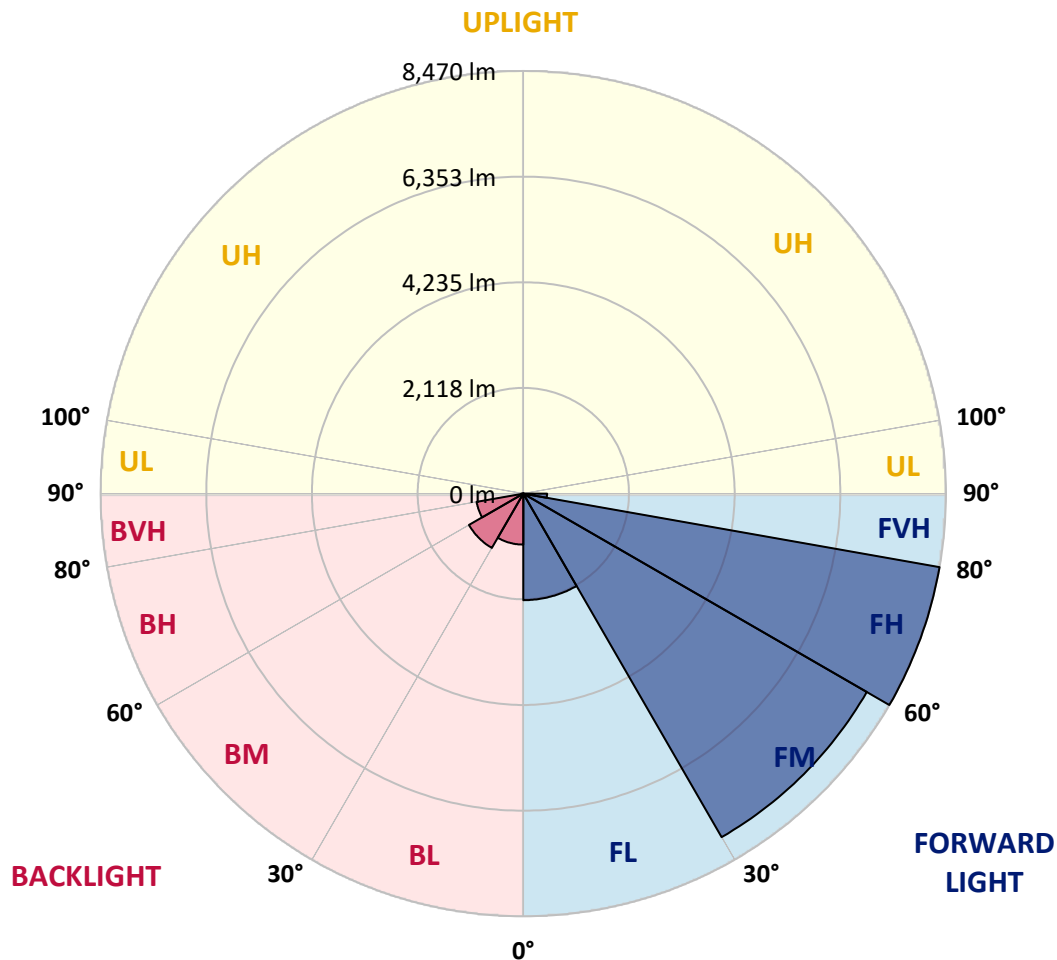
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2135.6	9.6			
FM (30°-60°)	7948.1	35.6			
FH (60°-80°)	8470.2	38.0			G4/12000
FVH (80°-90°)	476.4	2.1			G3/500
BL (0°-30°)	1021.4	4.6	B3/2500		
BM (30°-60°)	1256.7	5.6	B2/2500		
BH (60°-80°)	950.2	4.3	B2/1000		G2/1000
BVH (80°-90°)	39.5	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	6161.9	6161.9	6161.9	6161.9	6161.9	6161.9	6161.9	6161.9	6161.9	6161.9	6161.9
2.5°	6390.7	6408.1	6403.1	6396.9	6386.9	6359.6	6314.8	6307.4	6278.8	6217.8	6142.0
5°	6292.4	6307.4	6308.6	6317.3	6329.7	6324.8	6292.4	6288.7	6246.4	6164.3	6037.5
7.5°	5955.4	5975.3	6018.9	6067.4	6110.9	6151.9	6161.9	6168.1	6142.0	6047.5	5878.3
10°	5576.1	5596.0	5615.9	5688.1	5795.0	5897.0	5981.5	5992.7	5999.0	5911.9	5705.5
12.5°	5155.8	5196.9	5239.1	5346.1	5489.1	5649.5	5798.7	5822.4	5864.6	5798.7	5556.2
15°	4798.9	4841.2	4902.1	4997.9	5170.7	5402.0	5612.2	5650.8	5734.1	5700.5	5417.0
17.5°	4551.4	4566.4	4608.6	4718.1	4904.6	5148.4	5429.4	5506.5	5639.6	5630.9	5297.6
20°	4356.2	4374.9	4401.0	4468.1	4662.1	4919.5	5259.0	5358.5	5538.8	5568.7	5179.4
22.5°	4274.1	4287.8	4284.1	4320.1	4452.0	4710.6	5086.2	5204.3	5449.3	5526.4	5070.0
25°	4279.1	4291.5	4272.9	4264.2	4342.5	4526.6	4905.9	5056.3	5377.2	5497.8	4970.5
27.5°	4362.4	4371.1	4336.3	4301.5	4307.7	4412.2	4756.6	4923.3	5316.2	5510.2	4887.2
30°	4474.3	4490.5	4468.1	4425.8	4379.8	4384.8	4660.9	4825.0	5287.6	5553.8	4847.4
32.5°	4618.6	4633.5	4623.6	4590.0	4530.3	4464.4	4637.3	4789.0	5290.1	5642.1	4838.7
35°	4770.3	4800.2	4816.3	4813.8	4765.3	4650.9	4730.5	4856.1	5349.8	5790.0	4889.7
37.5°	4941.9	4966.8	5036.4	5081.2	5036.4	4903.4	4940.7	5027.7	5481.6	6003.9	5001.6
40°	5108.6	5145.9	5247.8	5387.1	5369.7	5252.8	5261.5	5318.7	5714.2	6322.3	5220.5
42.5°	5282.7	5327.4	5505.3	5711.7	5752.7	5661.9	5685.6	5736.6	6045.0	6763.7	5596.0
45°	5506.5	5560.0	5778.8	6036.3	6197.9	6142.0	6209.1	6234.0	6487.7	7338.3	6091.0
47.5°	5795.0	5857.2	6127.0	6447.9	6676.7	6727.7	6844.6	6829.7	7036.1	8018.5	6732.7
50°	6281.2	6316.1	6571.0	6898.1	7212.7	7442.7	7569.6	7593.2	7716.3	8680.1	7450.2
52.5°	6859.5	6890.6	7074.6	7360.7	7754.9	8242.3	8555.7	8478.6	8508.5	9485.9	8289.6
55°	7509.9	7562.1	7679.0	7869.3	8380.4	9097.9	9727.2	9745.8	9415.0	10256.9	9094.2
57.5°	8013.5	8101.8	8302.0	8573.1	9221.0	10049.2	10894.9	10907.3	10484.5	11080.2	9982.1
60°	7759.8	7864.3	8321.9	8982.3	10324.1	11709.4	12290.1	12219.3	11525.4	12017.8	11065.2
62.5°	6665.5	6684.2	7349.5	8381.6	10663.6	13930.4	14366.9	14067.2	12914.4	13206.7	12165.8
65°	4313.9	4435.8	4963.1	6409.3	9548.1	15162.8	18005.6	17312.9	14861.8	14555.9	13087.3
67.5°	2723.4	2692.3	2911.2	3659.8	6567.3	14077.1	21110.7	21001.3	17408.7	15407.8	12867.2
69°	2258.3	2293.1	2367.7	2805.5	4519.1	12019.1	21477.6	22233.7	18643.5	15340.6	12067.5
70°	2048.2	2064.3	2142.7	2487.1	3487.0	10066.7	20875.7	22200.1	19128.5	15059.6	11488.0
72.5°	1625.3	1624.1	1758.4	2069.3	2606.5	5746.5	17141.3	19274.0	18586.3	13751.3	9492.1
75°	1234.9	1254.8	1402.7	1750.9	2401.3	3140.0	11961.8	14843.2	14844.4	10861.3	5923.1
77.5°	890.4	902.8	1075.7	1469.9	2262.0	2545.6	7967.5	10646.2	10008.2	4976.7	1861.6
80°	583.2	590.7	722.5	1164.0	2039.4	2401.3	4724.3	6516.3	4720.6	1320.7	615.6
82.5°	319.6	356.9	441.5	753.6	1636.5	2218.5	2871.4	3297.9	1770.8	588.2	320.8
85°	160.4	170.4	248.7	440.2	1069.5	1835.5	1999.7	1891.5	914.0	292.2	166.6
87.5°	47.3	59.7	103.2	170.4	434.0	956.3	1113.0	998.6	351.9	105.7	34.8
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°	6161.9	6161.9	6161.9	6161.9	6161.9	6161.9	6161.9	6161.9	6161.9	6161.9	6161.9
2.5°	6110.9	6088.5	5989.0	5899.5	5817.4	5730.3	5657.0	5592.3	5598.5	5599.8	5533.9
5°	5971.6	5920.6	5731.6	5555.0	5405.8	5216.8	5055.1	4950.6	4898.4	4828.8	4853.6
7.5°	5782.6	5684.3	5421.9	5128.5	4853.6	4608.6	4342.5	4159.7	4042.8	3929.7	3944.6
10°	5587.3	5429.4	5047.6	4659.6	4304.0	3912.3	3572.8	3281.8	3065.4	2984.6	2931.1
12.5°	5387.1	5179.4	4694.5	4178.4	3687.2	3218.3	2737.1	2425.0	2186.2	2059.3	2075.5
15°	5204.3	4951.9	4326.4	3697.1	3059.2	2500.8	2020.8	1723.6	1556.9	1522.1	1542.0
17.5°	5035.2	4704.4	3981.9	3229.5	2484.6	1875.3	1518.4	1350.5	1283.4	1264.7	1263.5
20°	4861.1	4494.2	3595.1	2729.6	1936.2	1453.7	1246.1	1167.7	1155.3	1162.7	1164.0
22.5°	4684.5	4234.3	3197.2	2233.4	1542.0	1188.8	1089.4	1068.2	1078.2	1095.6	1098.1
25°	4521.6	4005.5	2814.2	1798.2	1231.1	1044.6	996.1	996.1	1018.5	1044.6	1045.8
27.5°	4387.3	3784.2	2432.4	1427.6	1030.9	940.1	924.0	932.7	963.8	983.7	984.9
30°	4276.6	3577.7	2071.8	1144.1	906.6	856.8	853.1	868.0	890.4	909.0	910.3
32.5°	4193.3	3396.2	1734.8	961.3	820.8	793.4	792.2	803.3	815.8	820.8	825.7
35°	4161.0	3245.7	1426.4	845.6	763.5	746.1	746.1	744.9	749.9	752.4	754.8
37.5°	4187.1	3130.1	1187.6	771.0	721.3	708.8	701.4	693.9	691.4	691.4	692.7
40°	4297.8	3069.1	1009.8	722.5	691.4	672.8	659.1	650.4	641.7	644.2	646.7
42.5°	4532.8	3080.3	889.1	690.2	665.3	639.2	619.3	609.3	603.1	610.6	609.3
45°	4907.1	3192.2	812.0	667.8	639.2	605.6	587.0	577.0	577.0	588.2	591.9
47.5°	5430.6	3406.1	771.0	650.4	619.3	579.5	560.8	553.4	555.9	574.5	575.8
50°	6069.8	3777.9	763.5	641.7	609.3	560.8	539.7	532.2	538.5	558.4	560.8
52.5°	6774.9	4256.7	799.6	642.9	600.6	549.7	522.3	511.1	517.3	533.5	538.5
55°	7610.6	4856.1	892.9	647.9	588.2	543.4	509.9	485.0	492.5	503.6	504.9
57.5°	8463.7	5612.2	1057.0	649.1	578.3	532.2	488.7	456.4	456.4	463.8	467.6
60°	9505.8	6435.4	1273.4	650.4	579.5	516.1	460.1	424.1	419.1	422.8	424.1
62.5°	10540.5	7124.4	1309.5	646.7	591.9	499.9	429.0	391.7	383.0	381.8	379.3
65°	10996.8	6996.3	1073.2	629.2	605.6	490.0	404.2	360.6	345.7	340.7	340.7
67.5°	10253.2	5918.1	807.1	605.6	596.9	480.0	380.5	334.5	317.1	307.2	307.2
69°	9554.3	5264.0	725.0	589.4	574.5	463.8	365.6	320.8	299.7	288.5	284.8
70°	9014.6	4813.8	690.2	575.8	553.4	445.2	354.4	310.9	287.3	274.8	272.3
72.5°	7194.0	3776.7	604.4	523.5	471.3	374.3	314.6	279.8	257.4	243.7	240.0
75°	4146.0	2046.9	501.2	455.1	379.3	291.0	266.1	243.7	226.3	213.9	210.2
77.5°	1275.9	790.9	363.1	359.4	278.6	225.1	212.6	203.9	191.5	177.8	175.3
80°	537.2	402.9	246.2	242.5	185.3	156.7	153.0	151.7	146.7	135.5	131.8
82.5°	294.7	227.6	171.6	149.2	111.9	90.8	94.5	95.8	92.0	80.8	73.4
85°	144.3	124.4	83.3	67.2	51.0	32.3	31.1	37.3	34.8	24.9	27.4
87.5°	28.6	34.8	22.4	9.9	5.0	0.0	0.0	0.0	0.0	0.0	0.0
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)