

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: P453822

Luminaire Tested: **GALN-SA4D-827-U-SL2**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453822  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-14)  
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-SL2  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
SPILL LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22456 lumens  
Efficiency: N/A  
Efficacy: 91.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G4

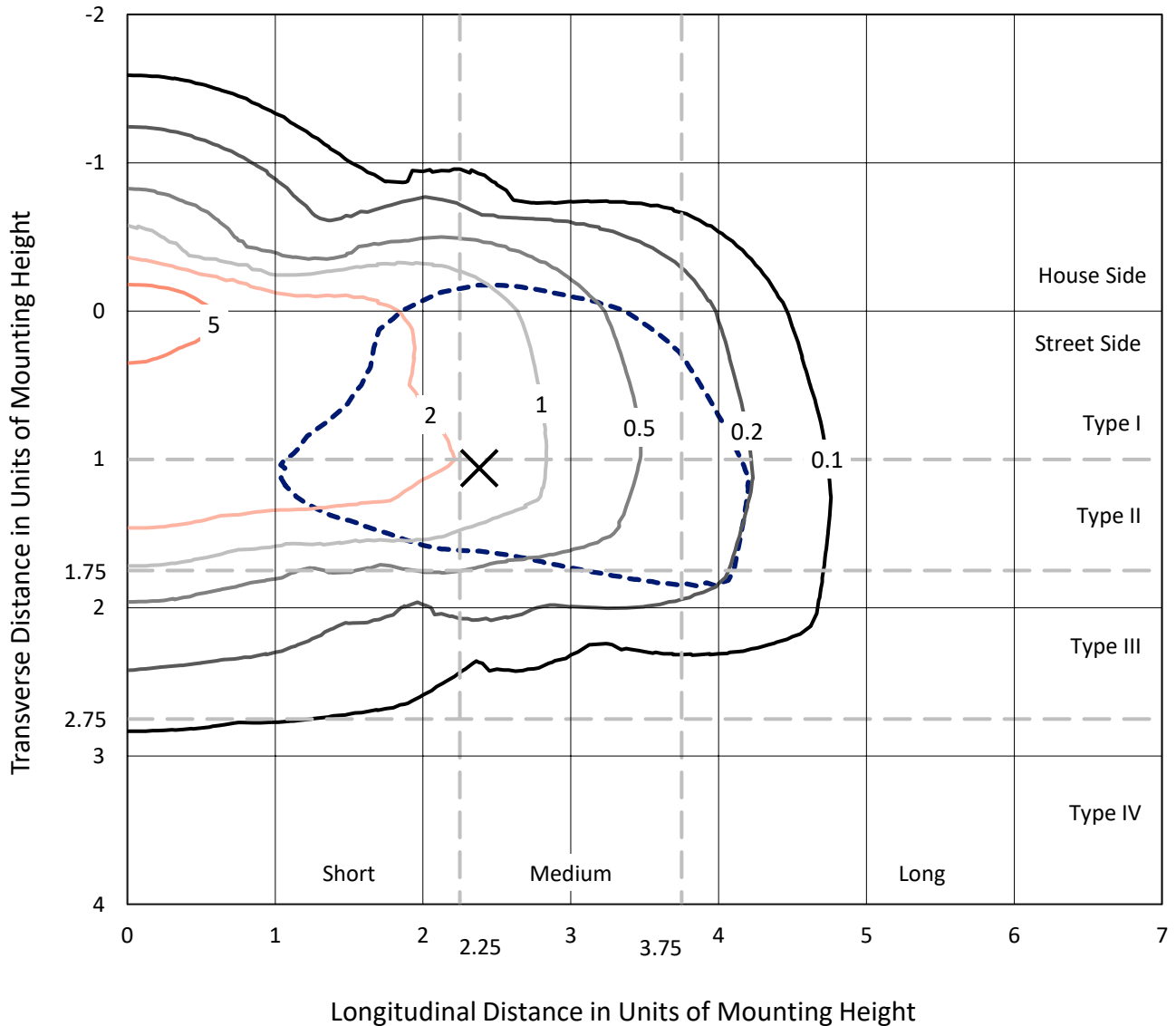
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

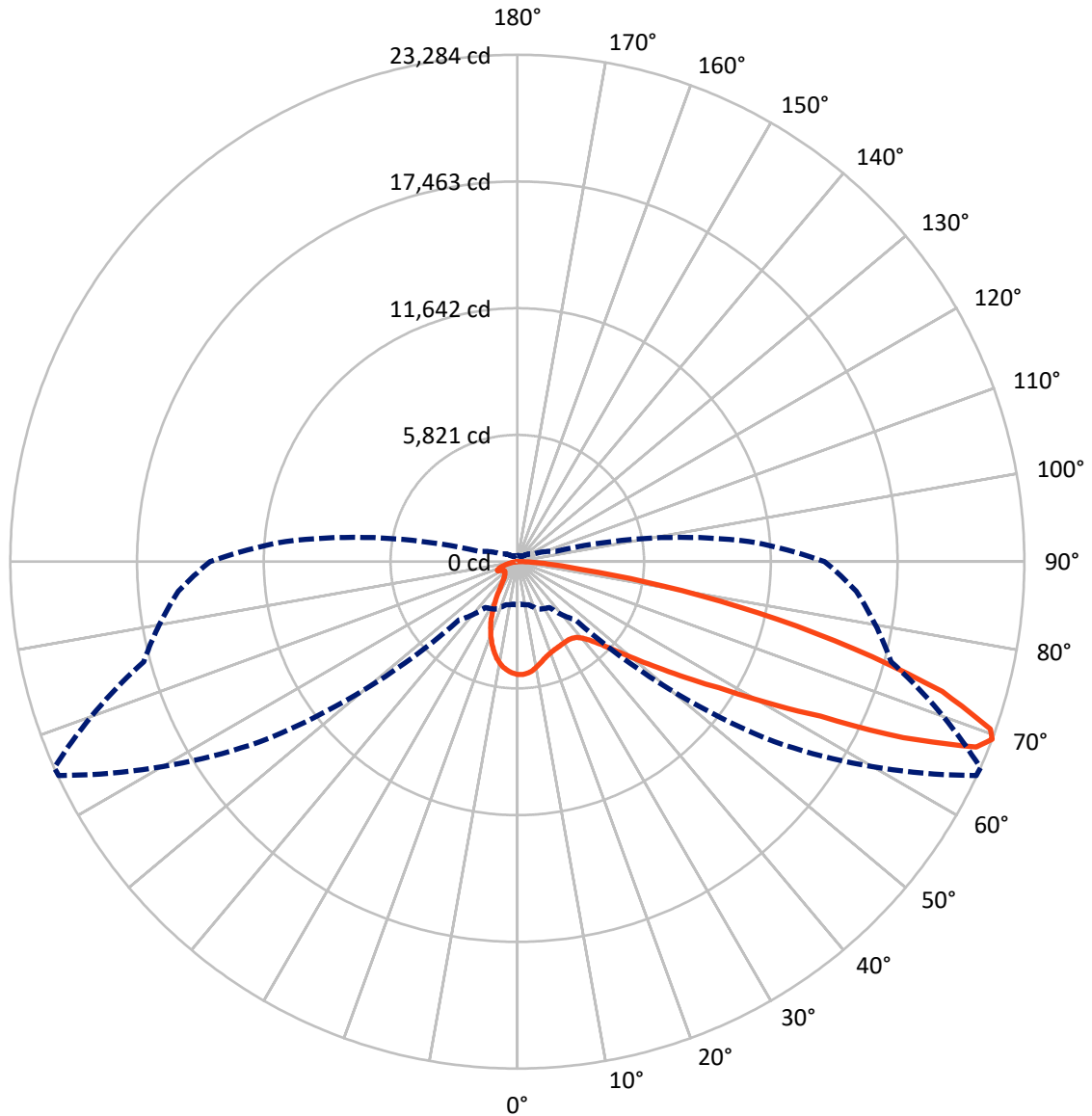
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.3 fc  
 Type III - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4223.1	0.0	4223.1
	% Fixture	18.8	0.0	18.8
<b>Street Side</b>	Lumens	18232.9	0.0	18232.9
	% Fixture	81.2	0.0	81.2
<b>Total</b>	Lumens	22456.0	0.0	22456.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	450.3	2.0
10°-20°	1068.1	4.8
20°-30°	1454.1	6.5
30°-40°	1954.0	8.7
40°-50°	2917.7	13.0
50°-60°	4641.0	20.7
60°-70°	5708.2	25.4
70°-80°	3714.0	16.5
80°-90°	548.5	2.4
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°	22456.0	100.0
0°-180°	22456.0	100.0

**Coefficient of Utilization**



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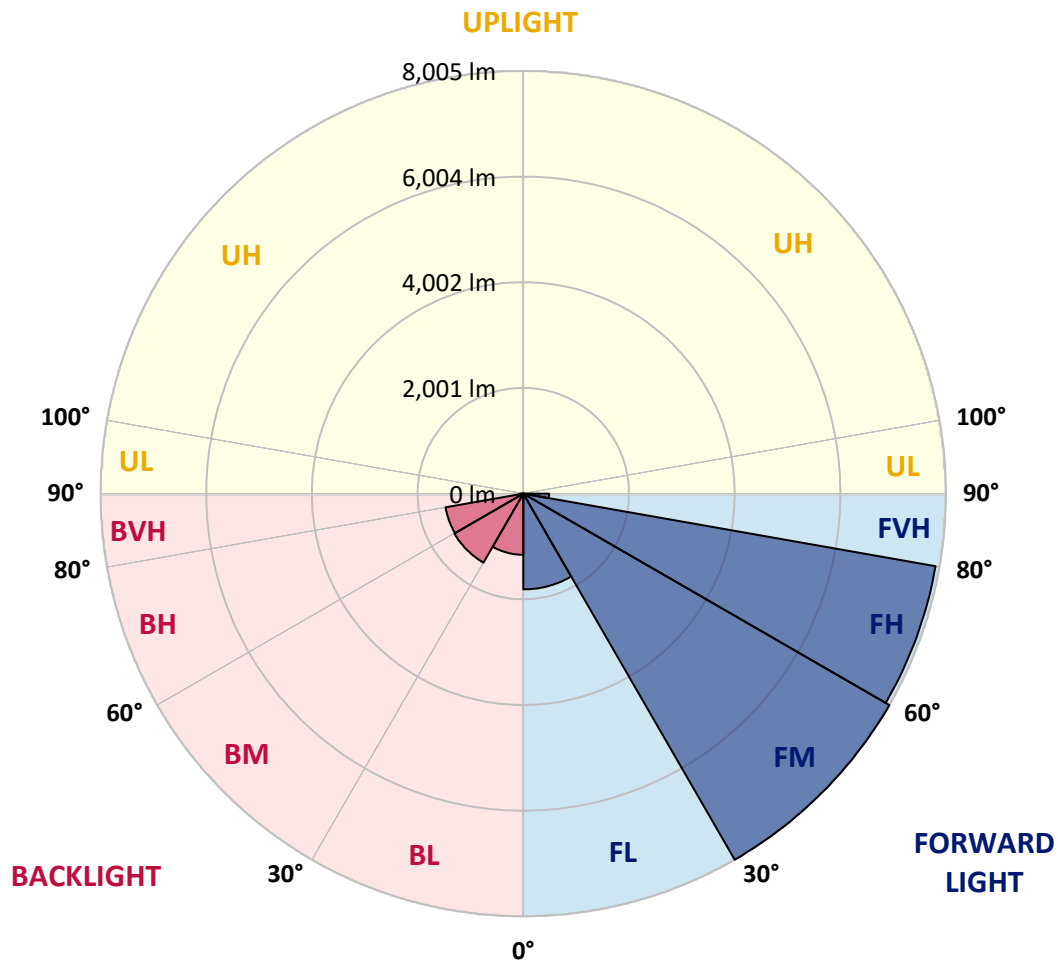
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1813.3	8.1			
FM	(30°-60°)	8004.9	35.6			
FH	(60°-80°)	7927.1	35.3			G4/12000
FVH	(80°-90°)	487.6	2.2			G3/500
BL	(0°-30°)	1159.3	5.2	B3/2500		
BM	(30°-60°)	1507.8	6.7	B2/2500		
BH	(60°-80°)	1495.2	6.7	B3/2500		G3/2500
BVH	(80°-90°)	60.8	0.3			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 Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	5185.7	5185.7	5185.7	5185.7	5185.7	5185.7	5185.7	5185.7	5185.7	5185.7	5185.7
2.5°	5004.2	5024.0	5046.4	5071.3	5118.6	5144.7	5163.3	5184.5	5187.0	5198.2	5189.4
5°	4634.8	4658.4	4692.0	4739.3	4810.2	4920.8	5035.2	5128.5	5139.7	5191.9	5206.9
7.5°	4326.4	4340.1	4367.4	4443.3	4544.0	4667.1	4833.8	5022.8	5050.2	5174.5	5218.0
10°	4075.2	4088.9	4121.2	4199.6	4299.0	4453.2	4636.1	4884.8	4907.2	5121.0	5220.5
12.5°	3887.4	3899.9	3934.7	4011.8	4126.2	4270.4	4471.9	4735.5	4767.9	5050.2	5196.9
15°	3744.4	3768.0	3796.6	3860.1	3980.7	4120.0	4315.2	4598.7	4624.9	4975.5	5180.7
17.5°	3683.5	3694.7	3714.6	3773.0	3861.3	3998.1	4194.6	4491.8	4522.9	4923.3	5177.0
20°	3686.0	3697.2	3700.9	3733.2	3796.6	3914.8	4108.8	4407.2	4444.5	4877.3	5183.2
22.5°	3770.5	3771.8	3758.1	3746.9	3771.8	3870.0	4047.8	4343.8	4387.3	4857.4	5188.2
25°	3901.1	3923.5	3903.6	3851.4	3805.3	3852.6	4024.2	4309.0	4350.0	4828.8	5182.0
27.5°	4112.5	4116.2	4100.1	4029.2	3909.8	3875.0	4014.3	4282.9	4317.7	4807.7	5150.9
30°	4396.0	4384.9	4369.9	4291.6	4103.8	3960.8	4035.4	4259.2	4295.3	4776.6	5113.6
32.5°	4683.3	4718.1	4704.5	4612.4	4368.7	4127.4	4103.8	4256.8	4286.6	4752.9	5072.5
35°	4988.0	5004.2	5068.8	5021.6	4771.6	4397.3	4231.9	4295.3	4318.9	4754.2	5043.9
37.5°	5226.8	5270.3	5422.0	5463.0	5228.0	4754.2	4439.6	4404.7	4414.7	4815.1	5055.1
40°	5515.3	5589.9	5785.1	5953.0	5798.8	5218.0	4792.7	4607.5	4619.9	4961.9	5128.5
42.5°	5880.9	5933.1	6195.5	6423.1	6398.2	5831.1	5220.5	4939.5	4945.7	5254.1	5333.7
45°	6308.7	6383.3	6678.0	7020.0	7078.4	6525.0	5838.6	5441.9	5438.2	5708.0	5716.7
47.5°	6855.8	6901.9	7194.1	7567.2	7803.4	7396.8	6588.5	6163.2	6123.4	6369.6	6298.7
50°	7359.5	7431.6	7653.0	8060.9	8649.1	8417.8	7574.6	7098.3	7005.1	7235.1	7115.7
52.5°	7570.9	7646.8	7833.3	8339.4	9374.1	9738.4	8826.9	8213.8	8058.4	8235.0	8191.4
55°	7204.0	7302.3	7476.4	8092.0	9692.4	11261.8	10515.7	9503.4	9390.2	9314.4	9326.8
57.5°	6217.9	6311.2	6546.2	7225.2	9311.9	12367.4	12927.0	11161.1	10918.6	10569.2	10628.8
60°	4733.1	4791.5	4913.4	5665.7	8184.0	12654.6	15665.3	13256.5	13102.3	11819.0	11861.2
62.5°	3361.4	3427.3	3511.9	3887.4	5991.6	11845.1	17809.3	16182.7	15631.8	13113.5	13072.5
65°	2729.7	2684.9	2786.9	2962.2	3515.6	9180.1	18291.8	20244.2	19485.6	14818.5	14248.9
67.5°	2244.7	2197.4	2298.1	2610.3	2673.7	5328.7	16553.2	22880.6	22728.8	16672.6	15444.0
69°	1987.2	1962.4	2050.7	2406.3	2566.7	3784.2	14420.5	23247.4	23283.5	17765.7	15628.0
70°	1790.8	1800.7	1886.5	2303.1	2518.2	3120.1	12325.1	22741.3	23047.2	18311.7	15429.1
72.5°	1318.2	1339.3	1458.7	1907.6	2472.2	2647.6	7334.6	19863.6	20404.6	18344.0	14114.6
75°	921.5	911.5	1017.2	1436.3	2335.4	2623.9	4307.7	15361.9	15975.0	15855.6	11860.0
77.5°	603.1	619.3	703.9	1014.8	1964.9	2604.0	2808.0	10898.7	11296.6	10604.0	7015.0
80°	425.3	424.1	471.3	692.7	1457.5	2502.1	2299.4	6869.5	6768.8	4167.2	2080.5
82.5°	243.7	261.2	315.9	487.5	975.0	2202.4	2115.3	3285.5	2999.5	1187.6	702.6
85°	135.5	141.8	187.8	294.7	569.6	1658.9	1846.7	1494.8	1410.2	496.2	302.2
87.5°	43.5	47.3	78.3	149.2	258.7	783.5	1045.8	690.2	636.7	179.1	121.9
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°	5185.7	5185.7	5185.7	5185.7	5185.7	5185.7	5185.7	5185.7	5185.7	5185.7	5185.7
2.5°	5193.2	5208.1	5168.3	5129.8	5094.9	5046.4	5002.9	4966.8	4942.0	4938.2	4925.8
5°	5210.6	5211.8	5136.0	5034.0	4934.5	4825.1	4711.9	4631.1	4555.2	4512.9	4491.8
7.5°	5223.0	5211.8	5075.0	4909.6	4718.1	4519.2	4320.2	4161.0	4037.9	3989.4	4008.0
10°	5218.0	5183.2	4983.0	4718.1	4439.6	4142.4	3856.3	3632.5	3427.3	3321.6	3324.1
12.5°	5190.7	5133.5	4846.2	4503.0	4093.9	3695.9	3258.2	2956.0	2718.5	2577.9	2534.4
15°	5167.1	5067.6	4685.8	4210.8	3702.1	3133.8	2600.3	2227.2	2028.3	1917.6	1916.4
17.5°	5142.2	5004.2	4510.5	3901.1	3252.0	2520.7	1961.1	1676.3	1583.1	1594.3	1575.6
20°	5116.1	4929.5	4327.6	3556.6	2703.5	1880.3	1468.7	1353.0	1379.1	1430.1	1437.6
22.5°	5086.2	4849.9	4131.2	3177.3	2126.5	1415.2	1191.3	1173.9	1241.1	1320.7	1331.9
25°	5040.2	4750.5	3883.7	2780.6	1640.3	1140.4	1043.4	1055.8	1121.7	1188.9	1196.3
27.5°	4975.5	4627.3	3633.7	2285.7	1232.4	978.7	953.8	970.0	1002.3	1043.4	1053.3
30°	4888.5	4488.1	3346.5	1857.9	987.4	897.9	887.9	896.6	915.3	932.7	937.7
32.5°	4801.4	4353.8	3056.7	1422.7	880.5	844.4	834.4	834.4	834.4	836.9	838.2
35°	4720.6	4226.9	2745.8	1108.0	824.5	802.1	788.4	773.5	771.0	762.3	762.3
37.5°	4675.8	4111.3	2415.0	927.7	783.5	767.3	748.6	723.8	710.1	711.3	708.8
40°	4684.6	4035.4	2114.1	825.7	749.9	732.5	703.9	675.3	666.6	666.6	664.1
42.5°	4782.8	4010.5	1825.6	772.3	717.5	697.6	661.6	635.5	630.5	629.2	631.7
45°	5009.1	4071.5	1566.9	737.4	690.2	660.3	624.3	600.6	595.7	595.7	594.4
47.5°	5450.6	4269.2	1381.6	715.1	670.3	631.7	594.4	570.8	562.1	559.6	559.6
50°	6137.1	4698.2	1243.6	695.2	645.4	605.6	567.1	539.7	526.0	524.8	523.5
52.5°	7090.9	5367.3	1190.1	680.2	618.1	578.3	536.0	509.9	492.5	488.7	486.2
55°	8206.4	6301.2	1263.5	669.0	589.5	547.2	503.6	476.3	460.1	452.7	451.4
57.5°	9498.4	7422.9	1542.0	654.1	563.3	513.6	471.3	444.0	426.5	417.8	415.4
60°	10658.7	8575.7	2028.3	645.4	541.0	477.5	434.0	409.1	393.0	384.3	383.0
62.5°	11933.4	9675.0	2609.0	669.0	531.0	442.7	399.2	376.8	363.1	354.4	354.4
65°	13295.1	10775.6	2993.3	748.6	545.9	415.4	361.9	343.2	330.8	324.6	323.3
67.5°	14212.8	11156.1	2466.0	830.7	583.2	385.5	325.8	310.9	303.4	297.2	297.2
69°	14113.4	10674.9	1819.4	851.8	594.4	370.6	305.9	294.7	284.8	282.3	279.8
70°	13798.7	10126.4	1524.6	838.2	585.7	356.9	293.5	279.8	271.1	268.6	267.4
72.5°	12290.3	8782.1	1135.4	728.7	498.7	309.7	259.9	247.5	240.0	236.3	236.3
75°	10211.0	7177.9	886.7	579.5	390.5	261.2	222.6	212.7	206.4	203.9	202.7
77.5°	5722.9	4008.0	636.7	453.9	296.0	211.4	186.5	177.8	171.6	169.1	169.1
80°	1594.3	1145.3	374.3	299.7	201.5	160.4	148.0	141.8	133.1	126.8	130.6
82.5°	600.6	496.2	213.9	180.3	128.1	106.9	103.2	98.2	94.5	85.8	85.8
85°	292.2	241.3	136.8	95.8	70.9	56.0	53.5	51.0	48.5	42.3	43.5
87.5°	100.7	106.9	59.7	34.8	21.1	13.7	11.2	6.2	6.2	6.2	6.2
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)