

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: P452977

Luminaire Tested: **GALN-SA4A-727-U-AFL-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452977
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4A-727-U-AFL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12396 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

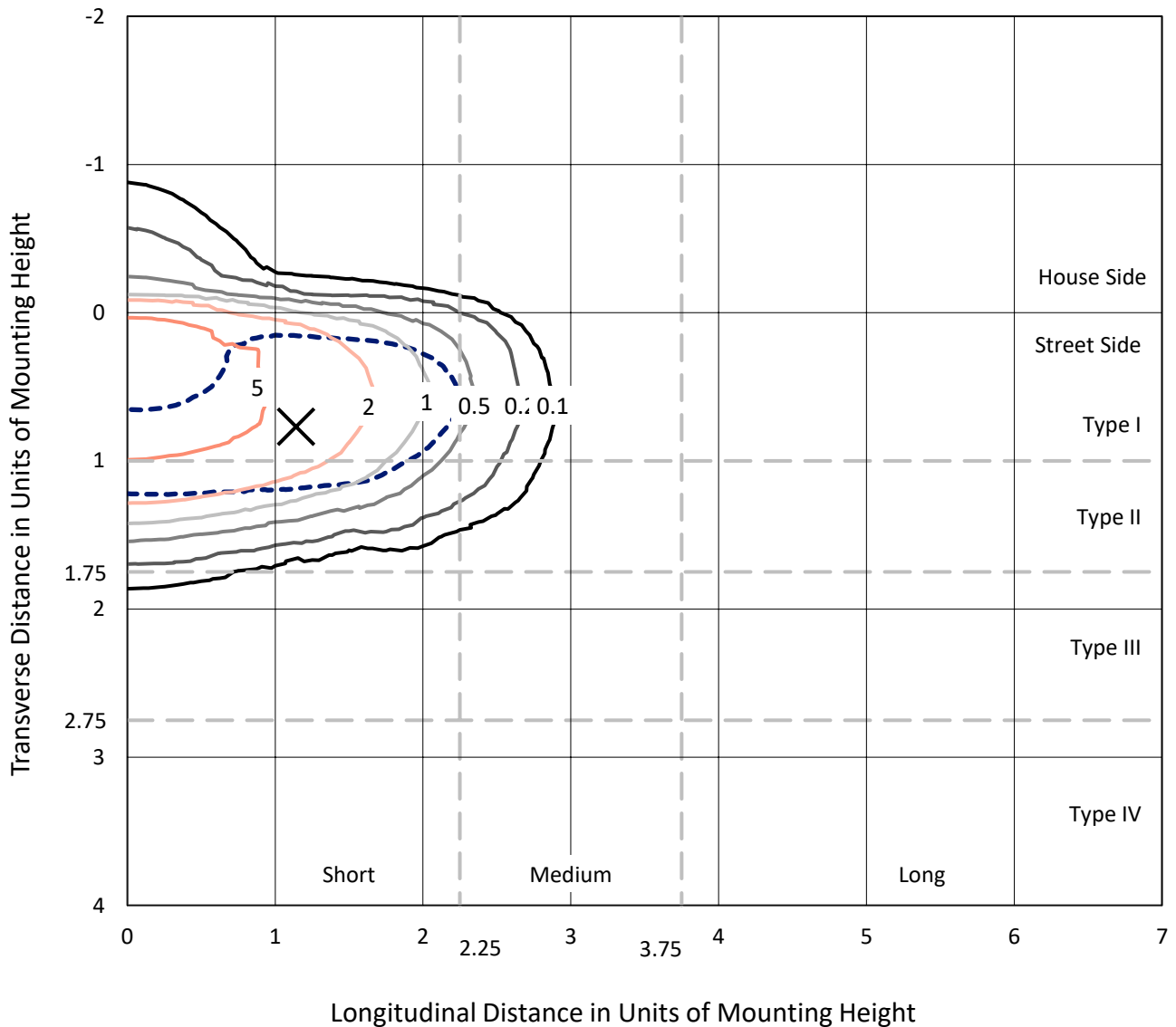
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

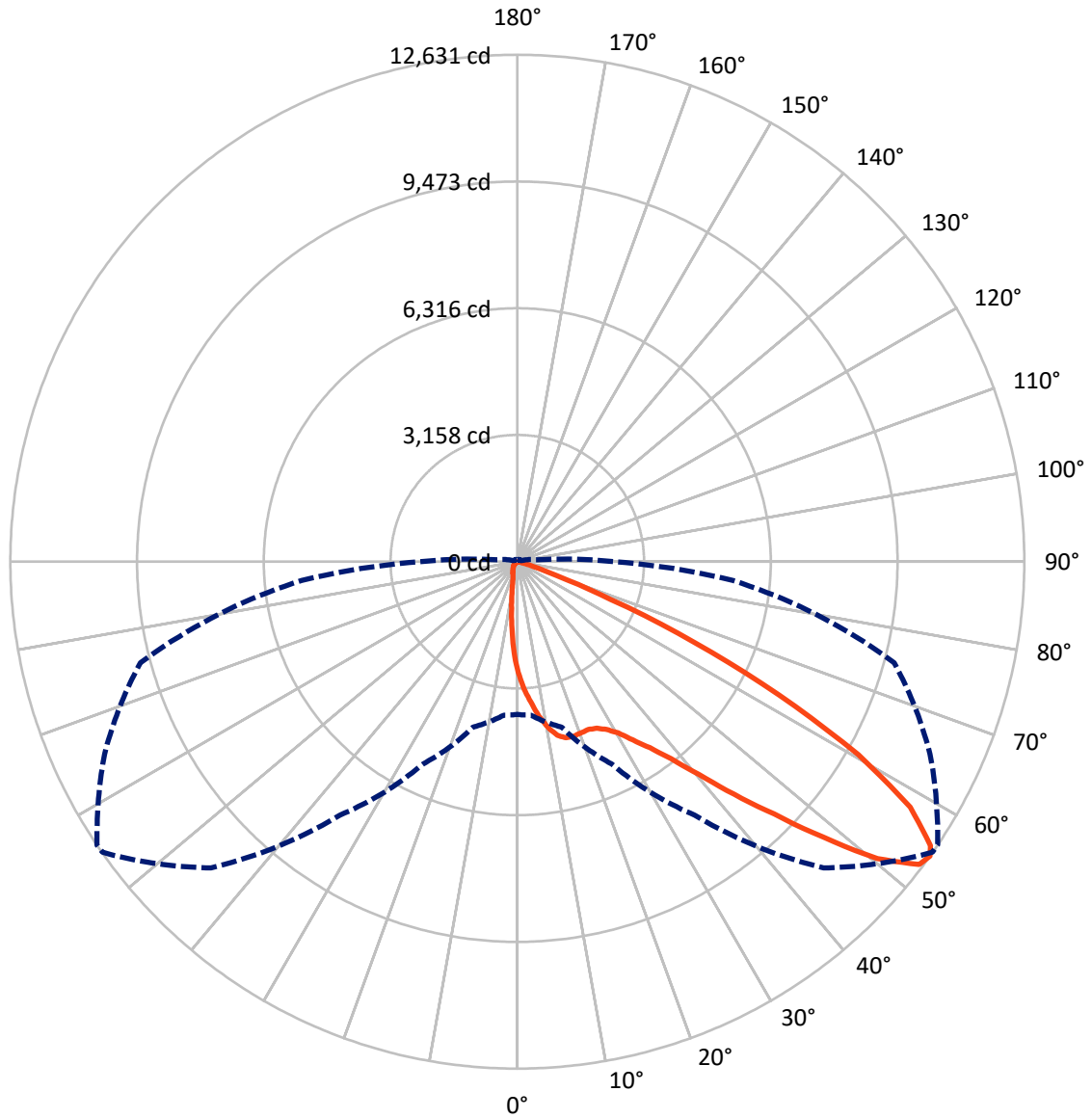
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral - - - Horizontal Cone Through 54-Deg Vertical

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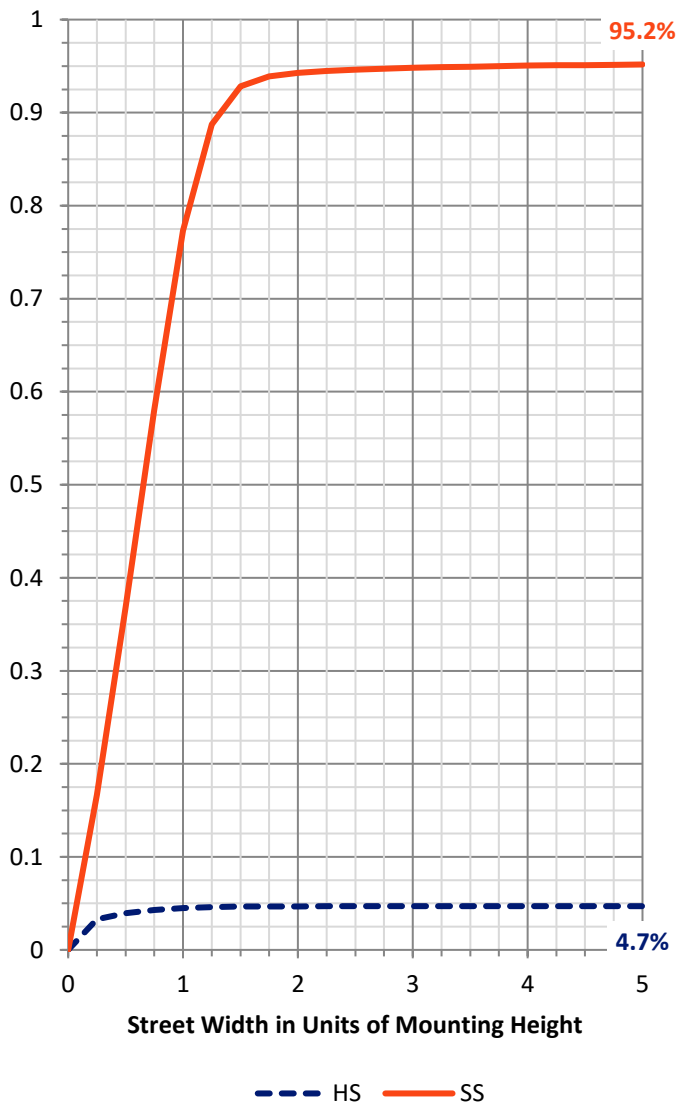
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	586.2	0.0	586.2
	% Fixture	4.7	0.0	4.7
Street Side	Lumens	11809.8	0.0	11809.8
	% Fixture	95.3	0.0	95.3
Total	Lumens	12396.0	0.0	12396.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.4	2.0
10°-20°	657.9	5.3
20°-30°	1139.4	9.2
30°-40°	1966.8	15.9
40°-50°	3347.6	27.0
50°-60°	3312.8	26.7
60°-70°	1512.0	12.2
70°-80°	194.2	1.6
80°-90°	21.9	0.2
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°	12396.0	100.0
0°-180°	12396.0	100.0

Coefficient of Utilization



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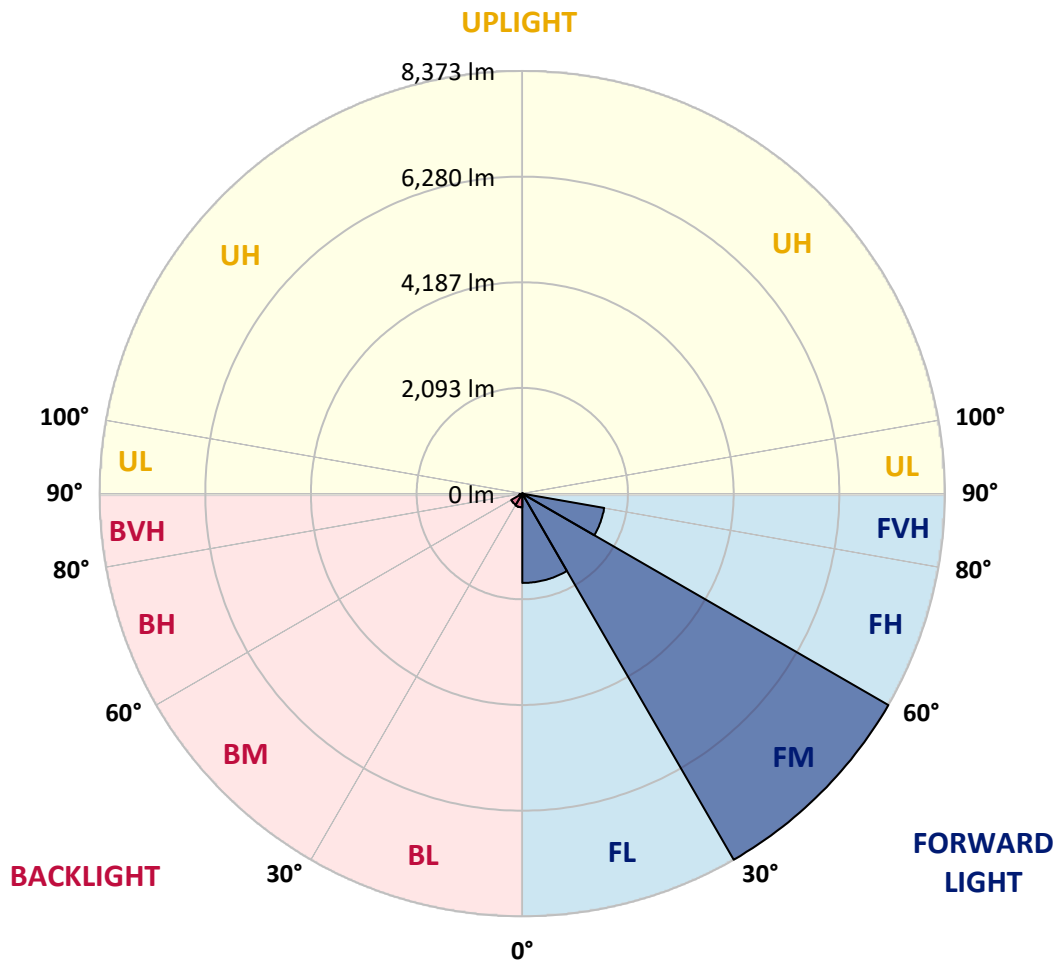
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1769.6	14.3			
FM (30°-60°)	8373.2	67.5			
FH (60°-80°)	1647.5	13.3			G1/1800
FVH (80°-90°)	19.5	0.2			G1/100
BL (0°-30°)	271.1	2.2	B1/500		
BM (30°-60°)	254.0	2.0	B1/1000		
BH (60°-80°)	58.7	0.5	B0/110		G0/110
BVH (80°-90°)	2.3	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	2754.0	2754.0	2754.0	2754.0	2754.0	2754.0	2754.0	2754.0	2754.0	2754.0	2754.0
2.5°	3500.0	3475.8	3442.3	3416.4	3355.4	3267.5	3174.7	3174.7	3085.2	2960.6	2833.5
5°	4037.0	4021.1	3988.5	3921.6	3853.0	3730.0	3543.5	3510.9	3351.2	3125.4	2887.8
7.5°	4255.2	4262.8	4264.4	4246.9	4214.3	4093.0	3908.2	3885.6	3630.5	3327.8	2958.9
10°	4046.2	4083.0	4118.9	4191.7	4294.6	4323.8	4219.3	4195.9	3945.0	3532.7	3035.9
12.5°	3735.1	3755.1	3775.2	3889.8	4096.3	4333.0	4442.6	4441.7	4229.3	3736.7	3133.7
15°	3590.4	3607.9	3609.6	3660.6	3839.6	4184.2	4537.9	4550.5	4507.0	3988.5	3239.1
17.5°	3620.5	3634.7	3623.0	3635.5	3729.2	4020.2	4527.1	4568.9	4732.0	4230.2	3334.4
20°	3817.0	3844.6	3799.4	3764.3	3792.8	3976.7	4490.3	4548.8	4890.9	4466.0	3421.4
22.5°	4169.9	4185.0	4128.1	4031.9	3981.8	4067.9	4480.2	4537.9	5026.3	4659.2	3471.6
25°	4562.2	4557.2	4494.4	4386.6	4281.2	4251.9	4546.3	4598.1	5138.4	4833.2	3486.7
27.5°	4954.4	4969.5	4864.1	4730.3	4604.0	4527.9	4694.3	4732.8	5264.7	5031.4	3505.1
30°	5410.2	5386.0	5282.3	5129.2	4984.5	4878.3	4932.7	4943.5	5438.7	5294.0	3553.6
32.5°	6003.2	5936.3	5820.0	5552.4	5448.7	5268.9	5282.3	5295.6	5650.2	5554.1	3612.1
35°	6807.7	6804.4	6576.9	6216.4	5963.9	5740.6	5682.0	5692.9	5970.6	5940.5	3741.7
37.5°	7776.2	7789.6	7530.3	7167.3	6702.3	6347.7	6227.3	6229.0	6457.3	6474.0	3939.1
40°	8564.9	8600.0	8445.3	8200.2	7741.1	7186.6	6984.2	6965.8	7141.4	7120.5	4221.0
42.5°	8904.4	8937.0	8994.7	9080.0	8827.5	8370.0	7892.4	7917.5	7971.1	7824.7	4537.1
45°	8738.0	8789.8	9016.5	9543.4	9780.9	9627.0	9057.5	8969.6	8743.0	8589.9	4854.9
47.5°	8044.7	8170.9	8549.8	9427.1	10258.4	10778.6	10372.2	10255.9	9515.8	9148.6	5057.3
50°	6904.7	6912.3	7440.0	8561.5	10010.9	11505.4	11714.5	11627.5	10235.8	9462.2	5159.3
52.5°	5005.4	5170.2	5653.6	6952.4	8938.7	11395.0	12570.0	12534.1	10978.5	9622.8	5306.5
54°	3805.3	3837.1	4267.0	5555.7	7706.8	10788.7	12622.7	12631.1	11347.3	9719.8	5393.5
55°	3119.5	3043.4	3495.0	4732.8	6866.3	10252.6	12450.4	12490.6	11512.9	9770.0	5457.9
57.5°	1478.6	1479.5	1824.9	2496.4	4300.4	7961.0	11397.5	11539.7	11531.3	9856.1	5656.1
60°	748.5	753.5	829.6	1152.5	2124.3	5292.3	9423.8	9762.5	10644.0	9868.7	5721.3
62.5°	523.5	517.7	505.1	554.5	894.0	2689.6	7016.0	7310.4	9043.2	9391.2	5513.9
65°	448.3	435.7	400.6	393.1	451.6	1071.3	4369.8	4849.9	6904.7	8131.6	4923.5
67.5°	383.0	378.0	346.2	327.0	319.5	466.7	2254.7	2507.3	4719.4	5845.1	3729.2
70°	325.3	322.8	303.6	279.3	258.4	279.3	836.3	1036.2	2630.3	3147.1	1759.6
72.5°	264.3	266.8	270.1	239.2	217.4	198.2	357.1	415.7	1100.6	1124.9	615.5
75°	231.7	229.2	229.2	208.2	181.5	147.2	196.5	211.6	337.0	312.8	143.0
77.5°	163.1	157.2	184.0	171.4	151.4	104.5	112.1	118.8	139.7	119.6	66.9
80°	112.9	112.9	117.9	153.9	136.3	76.1	68.6	73.6	82.8	71.1	38.5
82.5°	63.6	65.2	76.9	82.0	79.5	51.0	45.2	46.0	55.2	48.5	24.3
85°	7.5	12.5	44.3	43.5	32.6	22.6	25.1	25.9	34.3	30.1	14.2
87.5°	0.8	1.7	9.2	11.7	8.4	9.2	9.2	9.2	11.7	13.4	10.0
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°	2754.0	2754.0	2754.0	2754.0	2754.0	2754.0	2754.0	2754.0	2754.0	2754.0	2754.0
2.5°	2764.9	2701.3	2550.0	2374.3	2262.3	2080.0	1926.1	1814.8	1787.2	1733.7	1749.6
5°	2761.6	2629.4	2320.8	1994.6	1646.7	1387.5	1194.3	1042.1	975.2	930.8	899.9
7.5°	2763.2	2556.7	2061.6	1542.2	1126.5	872.3	693.3	600.5	538.6	512.7	516.0
10°	2768.3	2474.7	1760.5	1142.4	760.2	563.7	454.1	409.8	388.9	385.5	384.7
12.5°	2780.0	2385.2	1472.8	848.0	531.9	409.8	368.0	352.9	346.2	346.2	343.7
15°	2792.5	2286.5	1233.6	630.6	409.8	352.1	332.9	325.3	321.2	321.2	320.3
17.5°	2792.5	2172.8	1010.3	489.3	352.9	323.7	308.6	298.6	295.2	295.2	294.4
20°	2774.9	2040.6	812.1	393.9	320.3	296.9	281.8	271.0	266.8	265.1	264.3
22.5°	2713.9	1864.2	646.5	338.7	293.6	273.5	254.2	241.7	238.4	236.7	237.5
25°	2605.2	1665.1	511.8	297.7	269.3	245.0	228.3	219.1	215.8	215.8	216.6
27.5°	2493.1	1456.9	405.6	266.8	240.0	218.3	204.9	199.0	198.2	200.7	201.6
30°	2389.4	1247.8	328.7	241.7	214.1	195.7	186.5	184.8	184.8	185.7	186.5
32.5°	2274.0	1064.6	275.2	220.0	193.2	177.3	172.3	172.3	174.0	174.0	175.6
35°	2201.2	907.4	241.7	199.0	177.3	163.9	160.6	161.4	163.9	167.3	168.9
37.5°	2161.9	782.0	220.0	182.3	162.2	153.0	149.7	151.4	157.2	163.1	163.9
40°	2165.3	687.5	202.4	168.1	150.5	140.5	138.0	143.0	148.9	154.7	155.6
42.5°	2202.1	617.2	185.7	151.4	140.5	126.3	125.4	130.5	133.0	138.8	139.7
45°	2245.5	566.2	168.1	133.8	122.1	109.6	110.4	114.6	117.9	127.1	128.8
47.5°	2258.9	531.1	148.0	113.7	100.4	96.2	97.0	99.5	106.2	114.6	115.4
50°	2274.0	509.3	128.8	96.2	85.3	84.5	85.3	87.0	91.2	94.5	93.7
52.5°	2338.4	508.5	112.9	83.6	72.8	74.4	75.3	74.4	71.1	66.1	64.4
54°	2398.6	511.0	105.4	77.8	66.9	69.4	68.6	64.4	56.0	51.0	48.5
55°	2447.1	513.5	101.2	73.6	63.6	64.4	65.2	56.9	46.0	41.0	39.3
57.5°	2542.4	507.7	91.2	64.4	56.0	52.7	51.9	37.6	25.1	21.7	20.1
60°	2494.8	458.3	82.8	55.2	47.7	42.7	35.1	20.9	12.5	9.2	9.2
62.5°	2307.4	388.9	73.6	45.2	39.3	32.6	18.4	11.7	5.9	3.3	2.5
65°	2064.1	327.0	66.1	36.0	30.9	20.9	10.0	7.5	2.5	0.0	0.0
67.5°	1534.7	242.5	56.0	28.4	23.4	13.4	6.7	4.2	0.8	0.0	0.0
70°	710.9	148.0	47.7	21.7	16.7	10.0	5.0	2.5	0.0	0.0	0.0
72.5°	204.1	92.8	39.3	15.9	11.7	8.4	4.2	1.7	0.8	0.0	0.0
75°	71.1	74.4	29.3	11.7	9.2	5.9	3.3	1.7	0.8	0.0	0.0
77.5°	42.7	60.2	18.4	10.0	7.5	5.0	3.3	1.7	0.8	0.8	0.0
80°	24.3	40.1	11.7	8.4	6.7	4.2	2.5	1.7	0.8	0.8	0.0
82.5°	13.4	19.2	9.2	7.5	5.9	4.2	2.5	1.7	0.8	0.8	0.8
85°	10.9	10.0	7.5	6.7	5.0	3.3	2.5	0.8	0.0	0.0	0.0
87.5°	8.4	6.7	6.7	6.7	5.0	3.3	2.5	0.8	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)