

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: P453839

Luminaire Tested: **GALN-SA4D-827-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453839
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
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-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23022 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

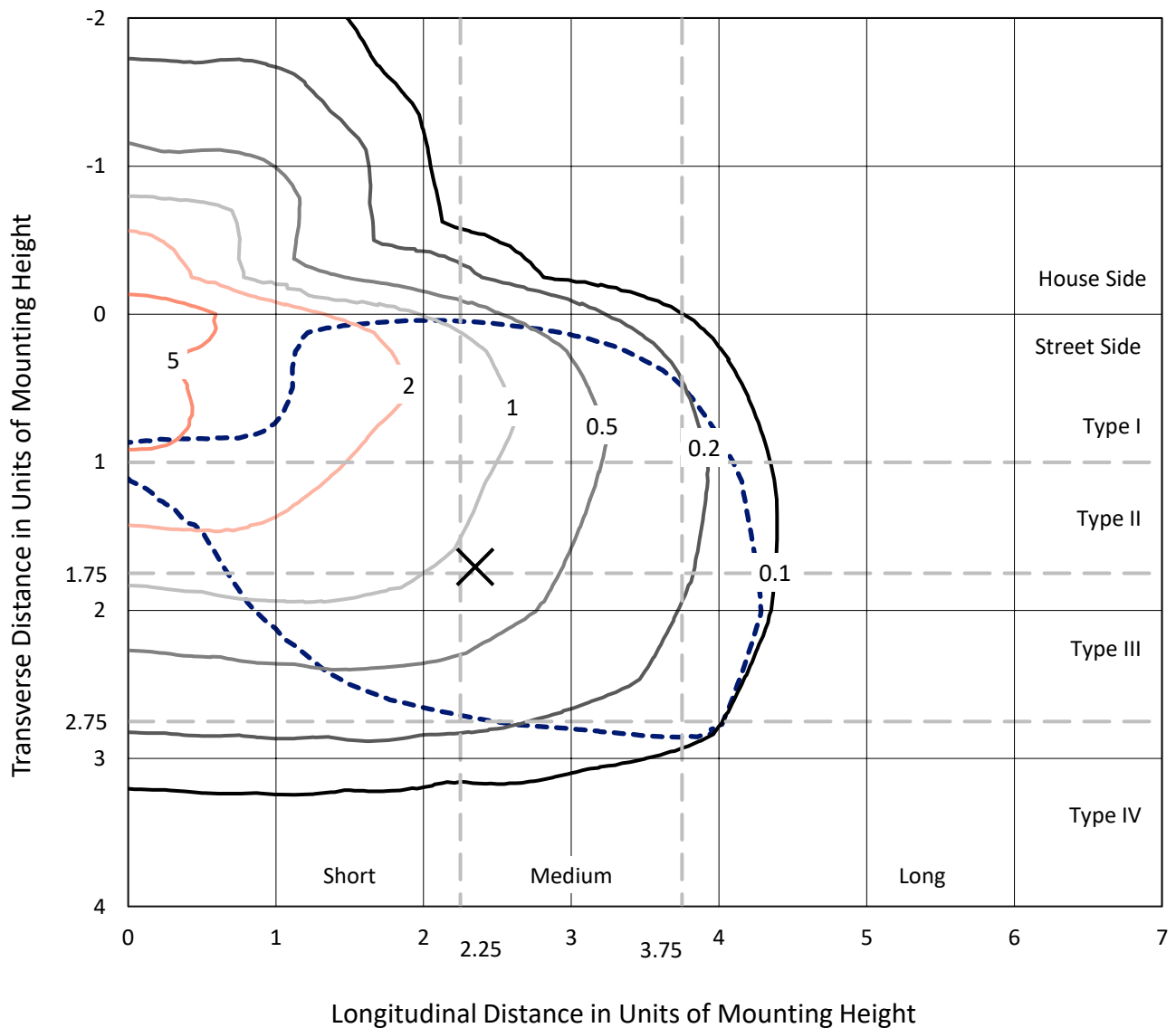
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

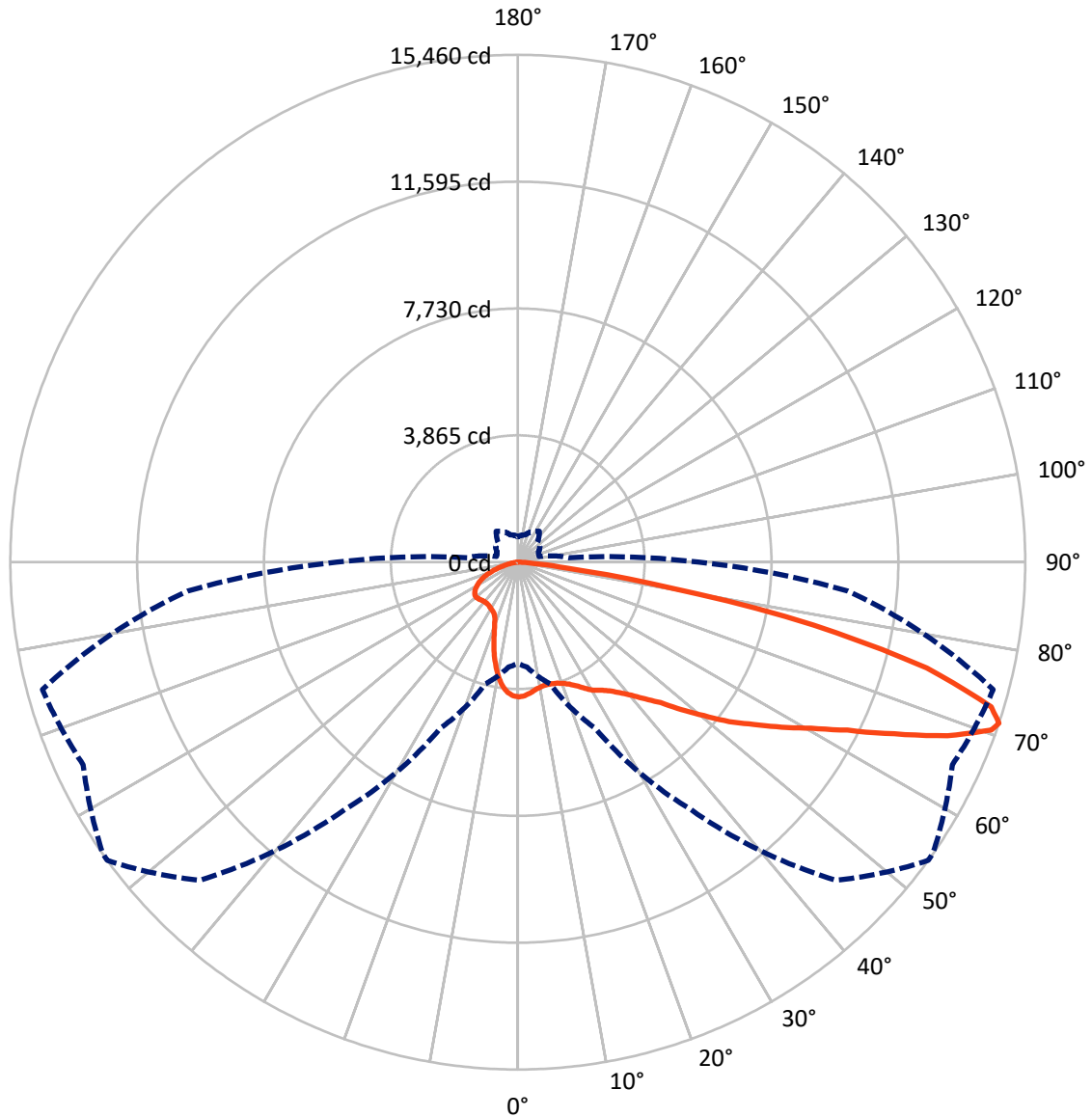
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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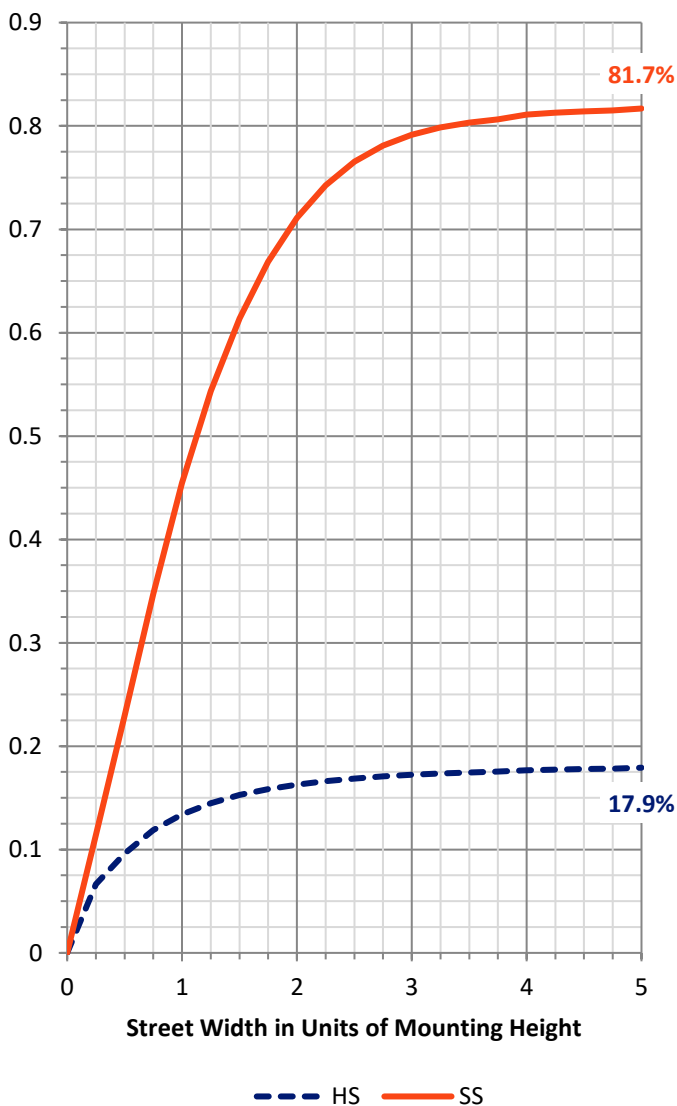
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4156.5	0.0	4156.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	18865.5	0.0	18865.5
	% Fixture	81.9	0.0	81.9
Total	Lumens	23022.0	0.0	23022.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.0	1.6
10°-20°	966.5	4.2
20°-30°	1609.3	7.0
30°-40°	2379.6	10.3
40°-50°	3351.8	14.6
50°-60°	4488.2	19.5
60°-70°	5657.0	24.6
70°-80°	3863.7	16.8
80°-90°	339.8	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°	23022.0	100.0
0°-180°	23022.0	100.0



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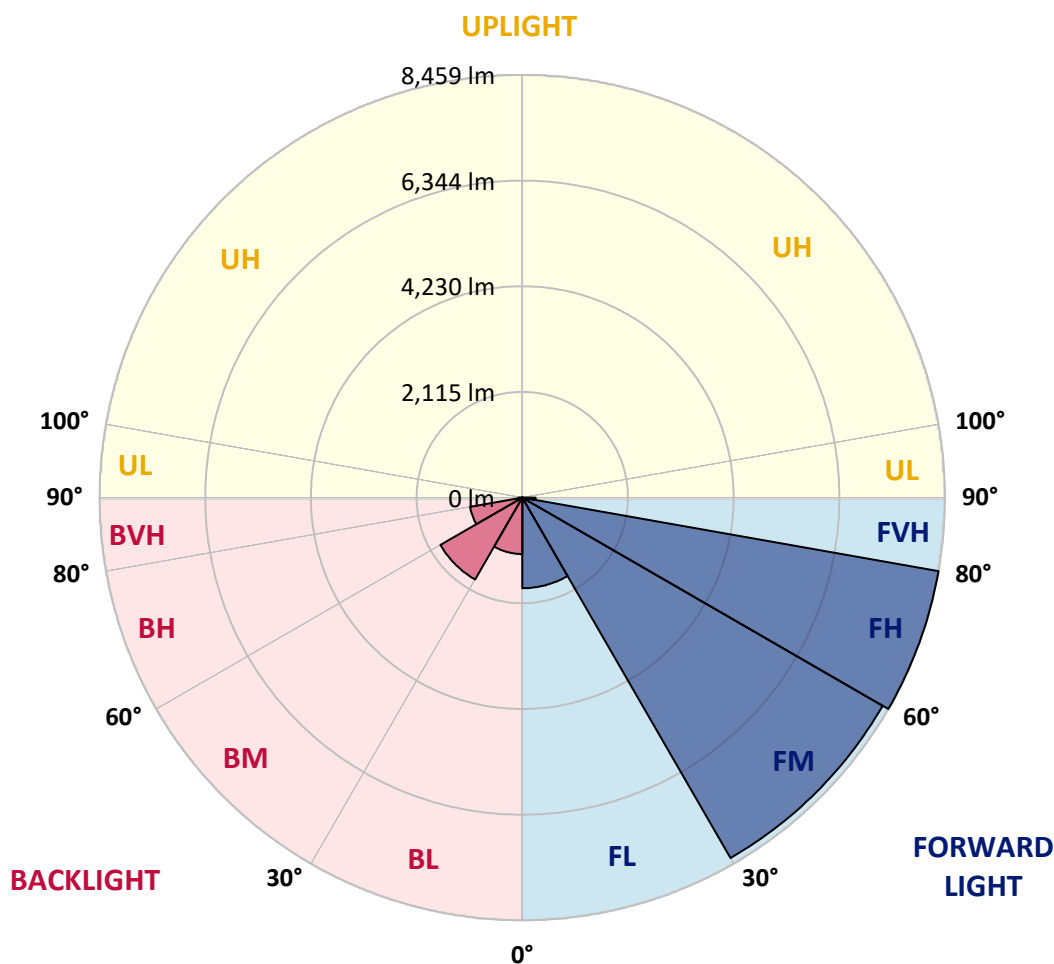
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1812.2	7.9			
FM	(30°-60°)	8328.5	36.2			
FH	(60°-80°)	8459.2	36.7			G4/12000
FVH	(80°-90°)	265.6	1.2			G3/500
BL	(0°-30°)	1129.7	4.9	B3/2500		
BM	(30°-60°)	1891.1	8.2	B2/2500		
BH	(60°-80°)	1061.6	4.6	B3/2500		G3/2500
BVH	(80°-90°)	74.2	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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	4107.5	4107.5	4107.5	4107.5	4107.5	4107.5	4107.5	4107.5	4107.5	4107.5	4107.5
2.5°	3968.2	3986.8	3991.8	4004.3	4030.4	4051.5	4072.6	4070.2	4100.0	4112.4	4123.6
5°	3791.6	3796.6	3815.2	3840.1	3886.1	3944.6	4001.8	4003.0	4076.4	4134.8	4163.4
7.5°	3662.3	3678.4	3690.9	3717.0	3765.5	3828.9	3919.7	3927.2	4057.7	4173.4	4234.3
10°	3577.7	3596.4	3610.0	3642.4	3690.9	3761.8	3860.0	3873.7	4044.0	4234.3	4341.3
12.5°	3500.6	3519.3	3531.7	3574.0	3637.4	3724.5	3835.1	3851.3	4049.0	4305.2	4458.1
15°	3547.9	3562.8	3557.8	3570.2	3612.5	3712.0	3845.1	3861.2	4067.7	4373.6	4573.8
17.5°	3758.0	3770.5	3729.4	3682.2	3662.3	3735.6	3876.2	3893.6	4105.0	4444.5	4691.9
20°	4067.7	4101.2	4011.7	3906.0	3810.3	3820.2	3940.8	3959.5	4157.2	4515.4	4812.6
22.5°	4470.6	4495.5	4386.0	4211.9	4035.3	3944.6	4037.8	4049.0	4235.6	4607.4	4944.4
25°	4944.4	4959.3	4807.6	4583.7	4328.8	4157.2	4170.9	4190.8	4364.9	4711.8	5061.3
27.5°	5404.5	5451.7	5276.4	5002.8	4667.1	4381.0	4353.7	4366.1	4505.4	4770.3	5142.1
30°	5950.4	5946.7	5761.4	5444.3	5014.0	4624.8	4526.5	4524.1	4581.3	4798.9	5200.6
32.5°	6385.7	6436.6	6255.1	5909.4	5410.7	4877.2	4645.9	4641.0	4639.7	4848.6	5287.6
35°	6880.6	6888.1	6721.4	6373.2	5839.7	5194.3	4812.6	4787.7	4759.1	4955.6	5405.7
37.5°	7323.3	7358.1	7205.2	6814.7	6261.3	5523.9	5041.4	5025.2	4938.2	5140.9	5594.8
40°	7669.0	7695.1	7603.1	7231.3	6676.7	5879.5	5332.4	5302.5	5196.8	5444.3	5847.2
42.5°	7782.2	7835.6	7871.7	7688.9	7154.2	6301.1	5690.5	5653.2	5572.4	5904.4	6138.2
45°	7790.9	7875.4	8065.7	8074.4	7634.2	6806.0	6108.3	6082.2	6076.0	6493.8	6547.3
47.5°	7725.0	7810.8	8130.4	8303.2	8062.0	7315.8	6711.5	6670.4	6674.2	7222.6	7006.2
50°	7565.8	7667.8	8055.8	8450.0	8396.5	7845.6	7348.2	7334.5	7411.6	8054.5	7482.5
52.5°	7266.1	7389.2	7978.7	8542.0	8645.2	8302.0	8071.9	8033.4	8228.6	8957.3	8003.5
55°	6436.6	6621.9	7696.4	8593.0	8881.5	8738.5	8723.5	8793.2	9051.8	9942.2	8576.8
57.5°	6003.9	6143.2	7083.3	8601.7	9179.9	9245.8	9484.6	9502.0	9954.7	10988.1	9224.7
60°	5767.6	5890.7	6747.5	8544.5	9596.5	9873.8	10263.1	10325.2	10836.3	12120.9	9896.2
62.5°	5561.2	5666.9	6546.1	8346.7	10066.6	10805.3	11271.6	11301.4	11837.4	13372.0	10559.0
65°	5075.0	5195.6	6140.7	8149.0	10472.0	11969.2	12609.7	12574.8	12903.1	14451.4	10974.4
67.5°	4419.6	4572.6	5383.4	7466.3	10672.2	13241.4	14116.8	14073.3	13955.2	15158.9	11093.8
70°	3582.7	3664.8	4414.6	6286.2	9872.6	13909.2	15306.9	15260.9	14606.8	15252.2	10529.2
71°	3082.8	3210.9	3843.8	5583.6	9207.3	13705.2	15459.9	15447.5	14608.1	14994.8	10103.9
72.5°	2406.3	2484.6	3044.2	4326.3	7825.7	12546.2	15081.8	15129.1	14290.9	14279.8	9227.2
75°	1522.1	1556.9	1910.1	2546.8	4294.0	8885.2	12874.5	13002.6	12689.2	11688.2	6861.9
77.5°	884.2	928.9	1144.1	1501.0	1855.4	4822.5	9212.3	9351.5	8816.8	6435.4	2809.2
80°	514.8	564.6	753.6	871.7	851.8	1789.5	4690.7	4928.2	3817.7	1625.3	788.4
82.5°	286.0	319.6	529.8	531.0	453.9	584.5	1476.1	1544.5	1089.4	655.4	322.1
85°	207.7	235.0	342.0	309.6	217.6	251.2	513.6	538.5	440.2	276.1	104.5
87.5°	73.4	104.5	187.8	149.2	59.7	52.2	148.0	120.6	111.9	77.1	23.6
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°	4107.5	4107.5	4107.5	4107.5	4107.5	4107.5	4107.5	4107.5	4107.5	4107.5	4107.5
2.5°	4129.8	4132.3	4119.9	4097.5	4075.1	4046.5	4014.2	3989.3	3978.1	3976.9	3975.6
5°	4174.6	4180.8	4133.6	4063.9	3986.8	3892.3	3811.5	3719.5	3695.8	3658.5	3669.7
7.5°	4246.7	4243.0	4149.7	4001.8	3821.4	3621.2	3452.1	3353.9	3251.9	3223.3	3224.5
10°	4350.0	4326.3	4149.7	3874.9	3574.0	3276.8	3040.5	2891.3	2810.4	2743.3	2718.4
12.5°	4459.4	4399.7	4110.0	3697.1	3255.6	2891.3	2637.6	2436.1	2383.9	2329.2	2330.4
15°	4563.9	4464.4	4031.6	3447.1	2912.4	2479.7	2233.4	2112.8	2096.6	2102.9	2101.6
17.5°	4658.4	4510.4	3912.2	3168.6	2512.0	2126.5	1995.9	2004.6	2048.1	2079.2	2083.0
20°	4754.1	4537.7	3734.4	2795.5	2133.9	1912.6	1917.6	1986.0	2051.9	2094.1	2100.4
22.5°	4844.9	4550.2	3525.5	2434.9	1860.4	1821.8	1895.2	1968.5	2033.2	2074.3	2080.5
25°	4904.6	4521.6	3229.5	2058.1	1726.1	1789.5	1866.6	1928.8	1983.5	2025.8	2035.7
27.5°	4920.8	4429.5	2862.7	1753.4	1663.9	1758.4	1829.3	1875.3	1917.6	1957.4	1964.8
30°	4912.0	4294.0	2459.8	1574.3	1627.8	1722.3	1777.0	1810.6	1861.6	1892.7	1898.9
32.5°	4898.4	4136.1	2039.4	1478.6	1598.0	1688.7	1721.1	1750.9	1749.7	1737.2	1746.0
35°	4903.3	3947.0	1698.7	1421.4	1571.9	1663.9	1691.2	1653.9	1547.0	1542.0	1537.0
37.5°	4929.5	3760.5	1451.2	1381.6	1558.2	1660.1	1675.1	1503.5	1408.9	1365.4	1354.2
40°	4996.6	3542.9	1288.3	1351.7	1556.9	1688.7	1601.7	1427.6	1246.0	1161.5	1155.3
42.5°	5086.1	3329.0	1188.8	1333.1	1571.9	1732.3	1571.9	1320.7	1122.9	1073.2	1065.7
45°	5219.2	3084.0	1134.1	1324.4	1594.2	1748.4	1561.9	1242.3	1073.2	1033.4	1033.4
47.5°	5369.7	2850.2	1104.3	1318.2	1622.8	1737.2	1473.6	1217.4	1049.6	1054.5	1078.2
50°	5518.9	2647.5	1081.9	1304.5	1647.7	1731.0	1437.6	1216.2	1055.8	1119.2	1161.5
52.5°	5691.8	2504.5	1054.5	1282.1	1647.7	1691.2	1426.4	1241.1	1073.2	1091.8	1110.5
55°	5900.7	2459.8	1019.7	1233.6	1617.9	1591.8	1420.1	1277.1	1085.6	1042.1	1049.6
57.5°	6176.7	2531.9	986.1	1172.7	1549.5	1488.5	1417.7	1287.1	1057.0	1021.0	1013.5
60°	6497.6	2674.9	976.2	1110.5	1456.2	1400.2	1402.7	1258.5	1017.2	979.9	986.1
62.5°	6722.7	2760.7	970.0	1063.2	1354.2	1303.2	1366.7	1223.7	999.8	967.5	973.7
65°	6722.7	2656.2	912.8	991.1	1222.4	1186.4	1323.1	1180.1	977.4	940.1	933.9
67.5°	6467.7	2351.6	825.7	882.9	1076.9	1053.3	1262.2	1127.9	943.9	915.3	900.3
70°	5803.7	1783.3	716.3	756.1	892.9	914.0	1183.9	1057.0	887.9	853.1	830.7
71°	5511.4	1553.2	670.3	691.4	822.0	853.1	1146.6	1027.2	863.0	813.3	773.5
72.5°	4948.1	1308.2	600.6	609.3	702.6	758.6	1068.2	970.0	815.8	744.9	700.1
75°	3759.3	955.1	483.7	478.8	519.8	601.9	904.1	864.3	715.0	619.3	593.2
77.5°	1624.1	519.8	361.9	365.6	353.2	456.4	711.3	742.4	613.1	503.6	480.0
80°	492.4	299.7	247.5	252.4	236.3	305.9	501.2	582.0	492.4	391.7	359.4
82.5°	252.4	179.1	169.1	166.6	150.5	172.9	303.4	397.9	351.9	245.0	216.4
85°	109.4	95.8	83.3	80.8	70.9	62.2	108.2	199.0	186.5	136.8	130.6
87.5°	27.4	24.9	16.2	14.9	8.7	1.2	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)