

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: P454303

Luminaire Tested: **GALN-SA5B-827-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454303
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-SA5B-827-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21437 lumens
Efficiency: N/A
Efficacy: 105.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

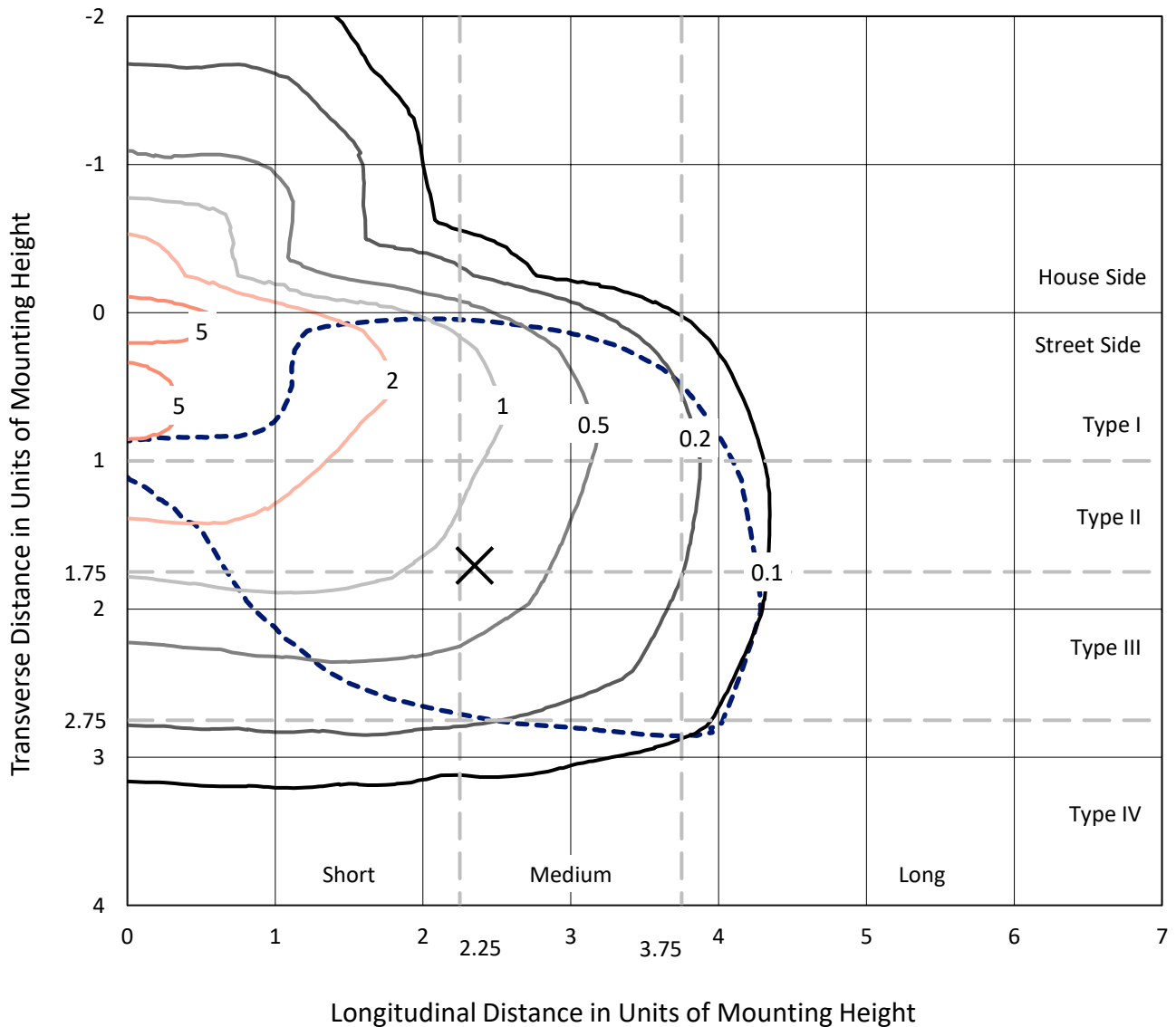
Input Watts (W): 204
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

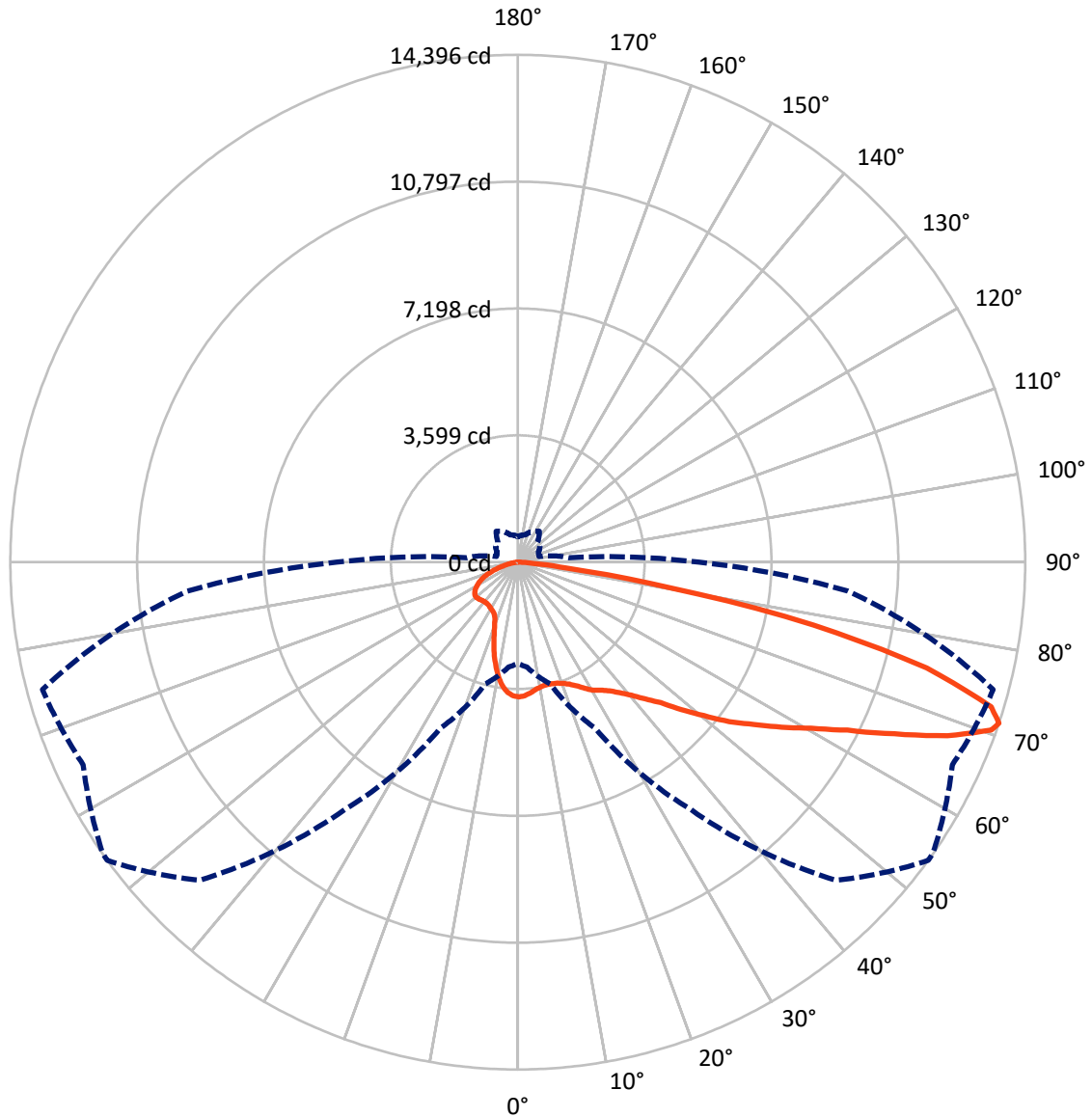
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 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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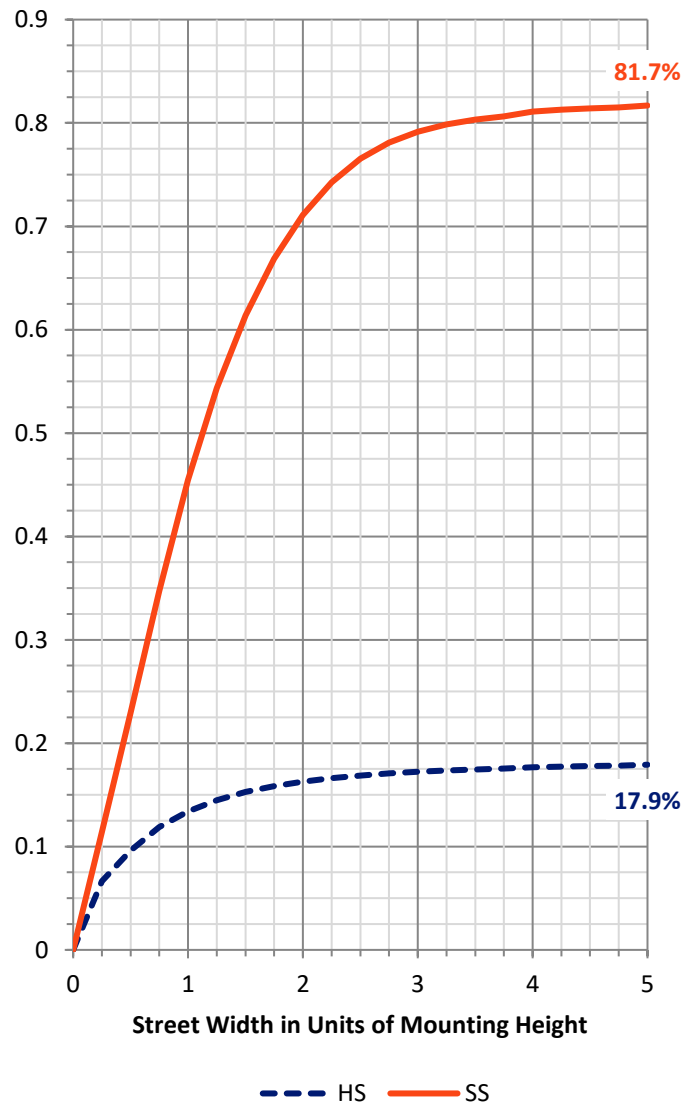
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3870.3	0.0	3870.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	17566.7	0.0	17566.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	21437.0	0.0	21437.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	340.8	1.6
10°-20°	900.0	4.2
20°-30°	1498.5	7.0
30°-40°	2215.8	10.3
40°-50°	3121.0	14.6
50°-60°	4179.2	19.5
60°-70°	5267.5	24.6
70°-80°	3597.7	16.8
80°-90°	316.4	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°	21437.0	100.0
0°-180°	21437.0	100.0



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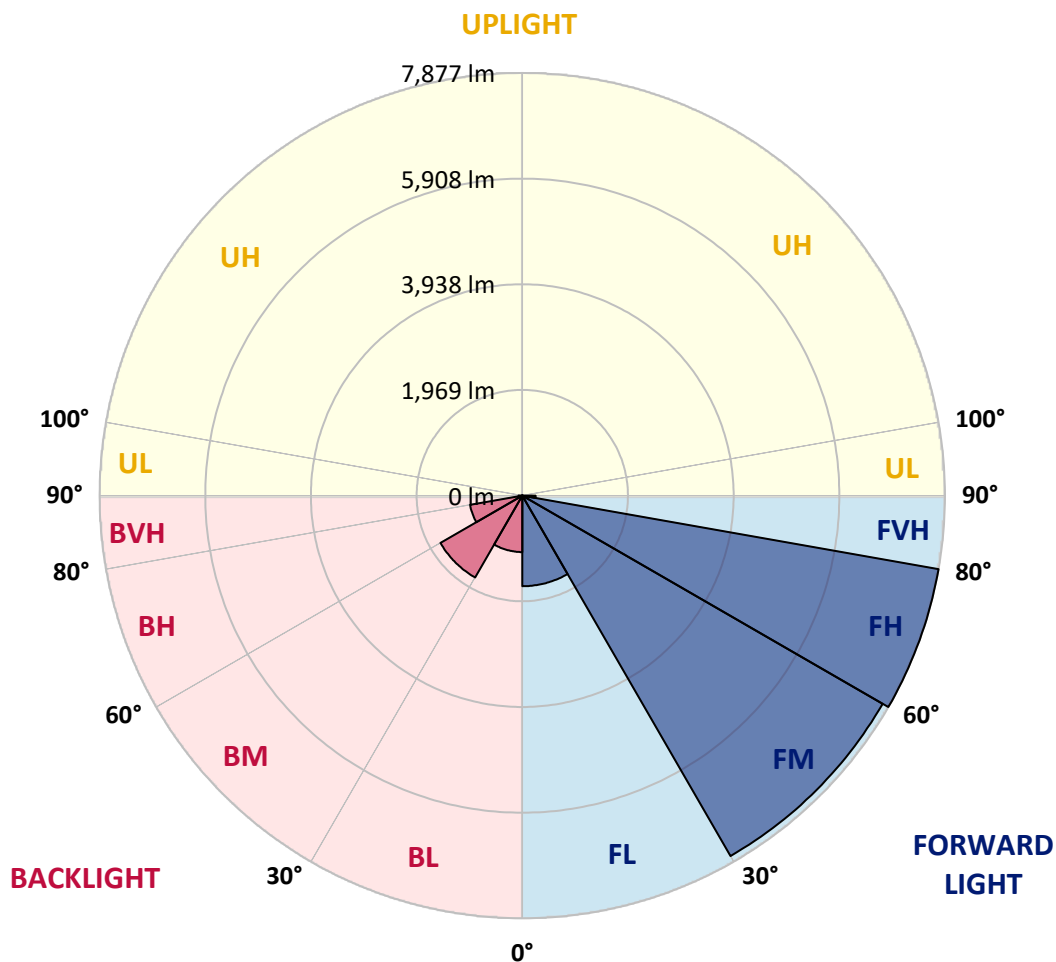
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1687.4	7.9			
FM	(30°-60°)	7755.1	36.2			
FH	(60°-80°)	7876.8	36.7			G4/12000
FVH	(80°-90°)	247.3	1.2			G3/500
BL	(0°-30°)	1051.9	4.9	B3/2500		
BM	(30°-60°)	1760.9	8.2	B2/2500		
BH	(60°-80°)	988.5	4.6	B2/1000		G2/1000
BVH	(80°-90°)	69.1	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°	3824.7	3824.7	3824.7	3824.7	3824.7	3824.7	3824.7	3824.7	3824.7	3824.7	3824.7
2.5°	3695.0	3712.4	3717.0	3728.6	3752.9	3772.6	3792.3	3789.9	3817.7	3829.3	3839.7
5°	3530.6	3535.2	3552.6	3575.7	3618.6	3673.0	3726.3	3727.4	3795.7	3850.2	3876.8
7.5°	3410.1	3425.2	3436.8	3461.1	3506.2	3565.3	3649.8	3656.8	3778.4	3886.0	3942.8
10°	3331.4	3348.8	3361.5	3391.6	3436.8	3502.8	3594.2	3607.0	3765.6	3942.8	4042.4
12.5°	3259.6	3277.0	3288.6	3327.9	3387.0	3468.0	3571.1	3586.1	3770.3	4008.8	4151.2
15°	3303.6	3317.5	3312.9	3324.4	3363.8	3456.5	3580.4	3595.4	3787.6	4072.5	4258.9
17.5°	3499.3	3510.9	3472.7	3428.7	3410.1	3478.5	3609.3	3625.5	3822.4	4138.5	4368.9
20°	3787.6	3818.9	3735.5	3637.1	3547.9	3557.2	3669.5	3686.9	3871.0	4204.5	4481.2
22.5°	4162.8	4186.0	4084.1	3921.9	3757.5	3673.0	3759.8	3770.3	3943.9	4290.2	4604.0
25°	4604.0	4617.9	4476.6	4268.2	4030.8	3871.0	3883.7	3902.3	4064.4	4387.4	4712.8
27.5°	5032.4	5076.4	4913.1	4658.4	4345.8	4079.4	4054.0	4065.5	4195.2	4441.9	4788.1
30°	5540.7	5537.3	5364.7	5069.5	4668.8	4306.4	4214.9	4212.6	4265.9	4468.5	4842.5
32.5°	5946.0	5993.5	5824.4	5502.5	5038.2	4541.4	4326.1	4321.4	4320.3	4514.8	4923.6
35°	6406.9	6413.8	6258.7	5934.4	5437.7	4836.7	4481.2	4458.1	4431.4	4614.4	5033.6
37.5°	6819.1	6851.5	6709.1	6345.5	5830.2	5143.6	4694.3	4679.2	4598.2	4786.9	5209.6
40°	7141.0	7165.3	7079.6	6733.4	6217.0	5474.7	4965.2	4937.5	4839.0	5069.5	5444.6
42.5°	7246.4	7296.2	7329.8	7159.5	6661.6	5867.3	5298.7	5264.0	5188.7	5497.9	5715.6
45°	7254.5	7333.2	7510.4	7518.5	7108.6	6337.4	5687.8	5663.5	5657.7	6046.8	6096.6
47.5°	7193.1	7273.0	7570.6	7731.6	7506.9	6812.2	6249.4	6211.2	6214.7	6725.3	6523.8
50°	7044.9	7139.9	7501.1	7868.2	7818.4	7305.4	6842.3	6829.5	6901.3	7500.0	6967.3
52.5°	6765.8	6880.5	7429.3	7953.9	8050.0	7730.4	7516.2	7480.3	7662.1	8340.6	7452.5
55°	5993.5	6166.0	7166.5	8001.4	8270.0	8136.8	8123.0	8187.8	8428.7	9257.7	7986.3
57.5°	5590.5	5720.2	6595.6	8009.5	8547.9	8609.3	8831.6	8847.8	9269.3	10231.6	8589.6
60°	5370.5	5485.2	6283.0	7956.2	8935.8	9194.0	9556.5	9614.4	10090.3	11286.4	9214.9
62.5°	5178.3	5276.7	6095.4	7772.1	9373.5	10061.3	10495.6	10523.4	11022.4	12451.3	9832.1
65°	4725.6	4837.9	5717.9	7588.0	9751.0	11145.2	11741.5	11709.1	12014.8	13456.4	10218.8
67.5°	4115.3	4257.7	5012.7	6952.3	9937.4	12329.8	13144.9	13104.4	12994.4	14115.3	10330.0
70°	3336.0	3412.5	4110.7	5853.4	9192.9	12951.6	14253.1	14210.2	13601.2	14202.1	9804.3
71°	2870.5	2989.8	3579.2	5199.2	8573.4	12761.7	14395.5	14383.9	13602.3	13962.4	9408.3
72.5°	2240.6	2313.6	2834.6	4028.5	7286.9	11682.5	14043.5	14087.5	13307.1	13296.6	8591.9
75°	1417.3	1449.7	1778.6	2371.5	3998.4	8273.5	11988.2	12107.4	11815.6	10883.5	6389.5
77.5°	823.3	865.0	1065.3	1397.6	1727.6	4490.5	8578.0	8707.7	8209.8	5992.3	2615.8
80°	479.4	525.7	701.7	811.7	793.2	1666.3	4367.8	4588.9	3554.9	1513.4	734.1
82.5°	266.3	297.6	493.3	494.4	422.6	544.2	1374.5	1438.2	1014.4	610.2	299.9
85°	193.4	218.9	318.4	288.3	202.6	233.9	478.2	501.4	409.9	257.1	97.3
87.5°	68.3	97.3	174.8	139.0	55.6	48.6	137.8	112.3	104.2	71.8	22.0
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°	3824.7	3824.7	3824.7	3824.7	3824.7	3824.7	3824.7	3824.7	3824.7	3824.7	3824.7
2.5°	3845.5	3847.8	3836.3	3815.4	3794.6	3767.9	3737.8	3714.7	3704.3	3703.1	3701.9
5°	3887.2	3893.0	3849.0	3784.2	3712.4	3624.4	3549.1	3463.4	3441.4	3406.7	3417.1
7.5°	3954.4	3950.9	3864.0	3726.3	3558.4	3371.9	3214.4	3123.0	3028.0	3001.4	3002.5
10°	4050.5	4028.5	3864.0	3608.1	3327.9	3051.2	2831.2	2692.2	2616.9	2554.4	2531.3
12.5°	4152.4	4096.8	3827.0	3442.6	3031.5	2692.2	2456.0	2268.4	2219.8	2168.8	2170.0
15°	4249.6	4157.0	3754.0	3209.8	2711.9	2308.9	2079.7	1967.3	1952.3	1958.1	1956.9
17.5°	4337.6	4199.9	3642.9	2950.4	2339.0	1980.1	1858.5	1866.6	1907.1	1936.1	1939.6
20°	4426.8	4225.3	3477.3	2603.1	1987.0	1780.9	1785.5	1849.2	1910.6	1950.0	1955.8
22.5°	4511.3	4236.9	3282.8	2267.2	1732.3	1696.4	1764.7	1833.0	1893.2	1931.4	1937.2
25°	4566.9	4210.3	3007.2	1916.4	1607.2	1666.3	1738.1	1796.0	1846.9	1886.3	1895.5
27.5°	4582.0	4124.6	2665.6	1632.7	1549.3	1637.3	1703.3	1746.2	1785.5	1822.6	1829.5
30°	4573.9	3998.4	2290.4	1466.0	1515.7	1603.7	1654.7	1686.0	1733.4	1762.4	1768.2
32.5°	4561.1	3851.3	1899.0	1376.8	1488.0	1572.5	1602.6	1630.4	1629.2	1617.6	1625.7
35°	4565.8	3675.3	1581.7	1323.5	1463.6	1549.3	1574.8	1540.1	1440.5	1435.8	1431.2
37.5°	4590.1	3501.6	1351.3	1286.5	1450.9	1545.9	1559.7	1400.0	1311.9	1271.4	1261.0
40°	4652.6	3299.0	1199.6	1258.7	1449.7	1572.5	1491.4	1329.3	1160.3	1081.5	1075.7
42.5°	4736.0	3099.8	1107.0	1241.3	1463.6	1613.0	1463.6	1229.7	1045.6	999.3	992.4
45°	4859.9	2871.7	1056.0	1233.2	1484.5	1628.1	1454.4	1156.8	999.3	962.2	962.2
47.5°	5000.0	2654.0	1028.3	1227.4	1511.1	1617.6	1372.2	1133.6	977.3	981.9	1003.9
50°	5138.9	2465.3	1007.4	1214.7	1534.3	1611.9	1338.6	1132.5	983.1	1042.1	1081.5
52.5°	5299.9	2332.1	981.9	1193.8	1534.3	1574.8	1328.2	1155.6	999.3	1016.7	1034.0
55°	5494.4	2290.4	949.5	1148.7	1506.5	1482.2	1322.4	1189.2	1010.9	970.4	977.3
57.5°	5751.5	2357.6	918.2	1091.9	1442.8	1386.1	1320.1	1198.5	984.2	950.7	943.7
60°	6050.2	2490.7	909.0	1034.0	1355.9	1303.8	1306.2	1171.8	947.2	912.5	918.2
62.5°	6259.8	2570.6	903.2	990.0	1261.0	1213.5	1272.6	1139.4	931.0	900.9	906.7
65°	6259.8	2473.4	849.9	922.9	1138.3	1104.7	1232.0	1098.9	910.1	875.4	869.6
67.5°	6022.4	2189.7	768.9	822.1	1002.8	980.8	1175.3	1050.3	878.9	852.2	838.3
70°	5404.1	1660.5	667.0	704.0	831.4	851.1	1102.4	984.2	826.8	794.3	773.5
71°	5132.0	1446.3	624.1	643.8	765.4	794.3	1067.6	956.5	803.6	757.3	720.2
72.5°	4607.4	1218.2	559.3	567.4	654.2	706.3	994.7	903.2	759.6	693.6	651.9
75°	3500.5	889.3	450.4	445.8	484.0	560.4	841.8	804.8	665.8	576.7	552.3
77.5°	1512.3	484.0	337.0	340.4	328.9	425.0	662.3	691.3	570.9	469.0	447.0
80°	458.5	279.1	230.4	235.1	220.0	284.9	466.7	541.9	458.5	364.8	334.6
82.5°	235.1	166.7	157.5	155.2	140.1	161.0	282.5	370.5	327.7	228.1	201.5
85°	101.9	89.2	77.6	75.3	66.0	57.9	100.7	185.3	173.7	127.4	121.6
87.5°	25.5	23.2	15.1	13.9	8.1	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)