

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: P647408

Luminaire Tested: **GALN-SA4D-835-U-T3-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P647408  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4D-835-U-T3-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17592.5 lumens  
Efficiency: N/A  
Efficacy: 71.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3

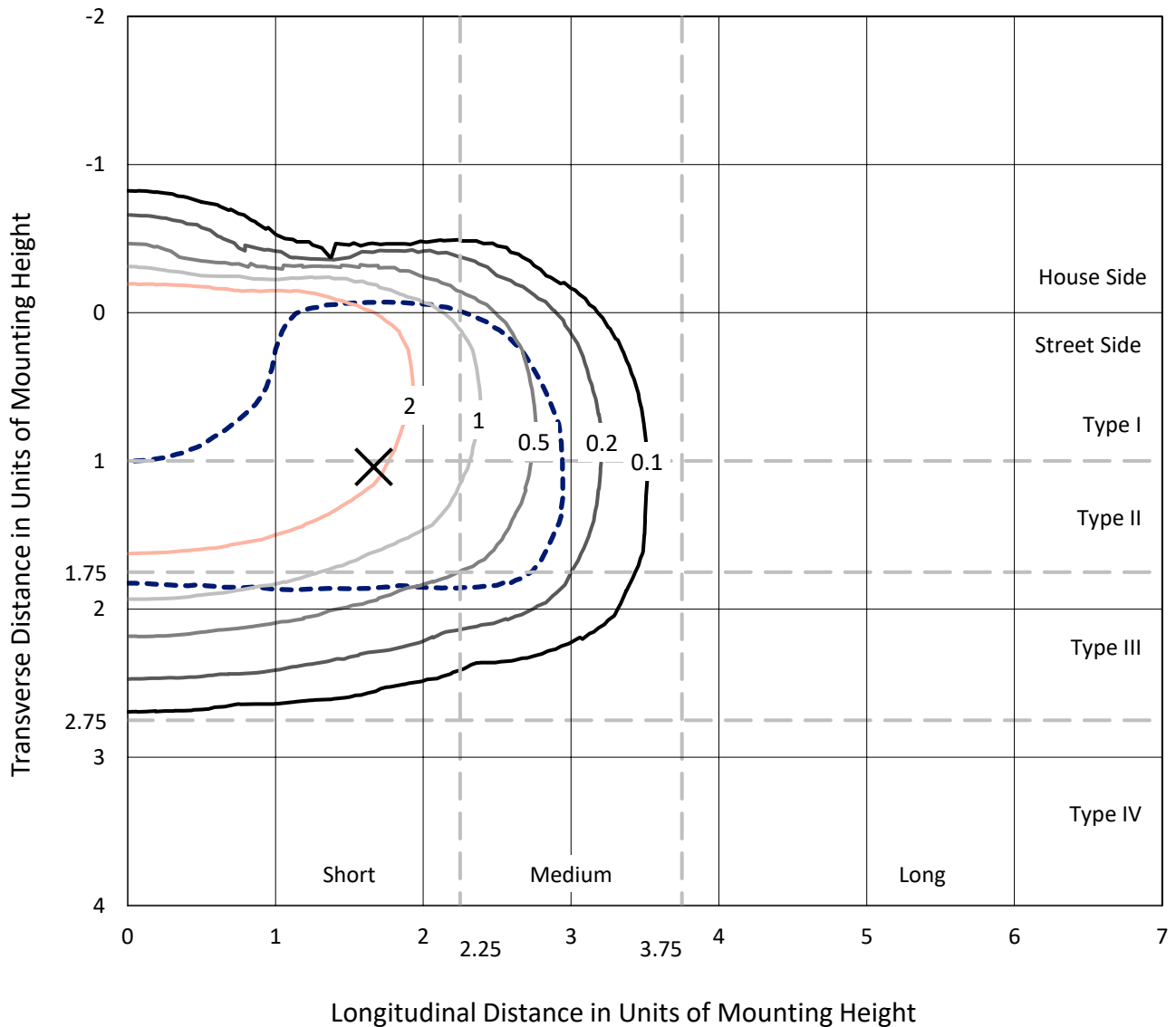
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

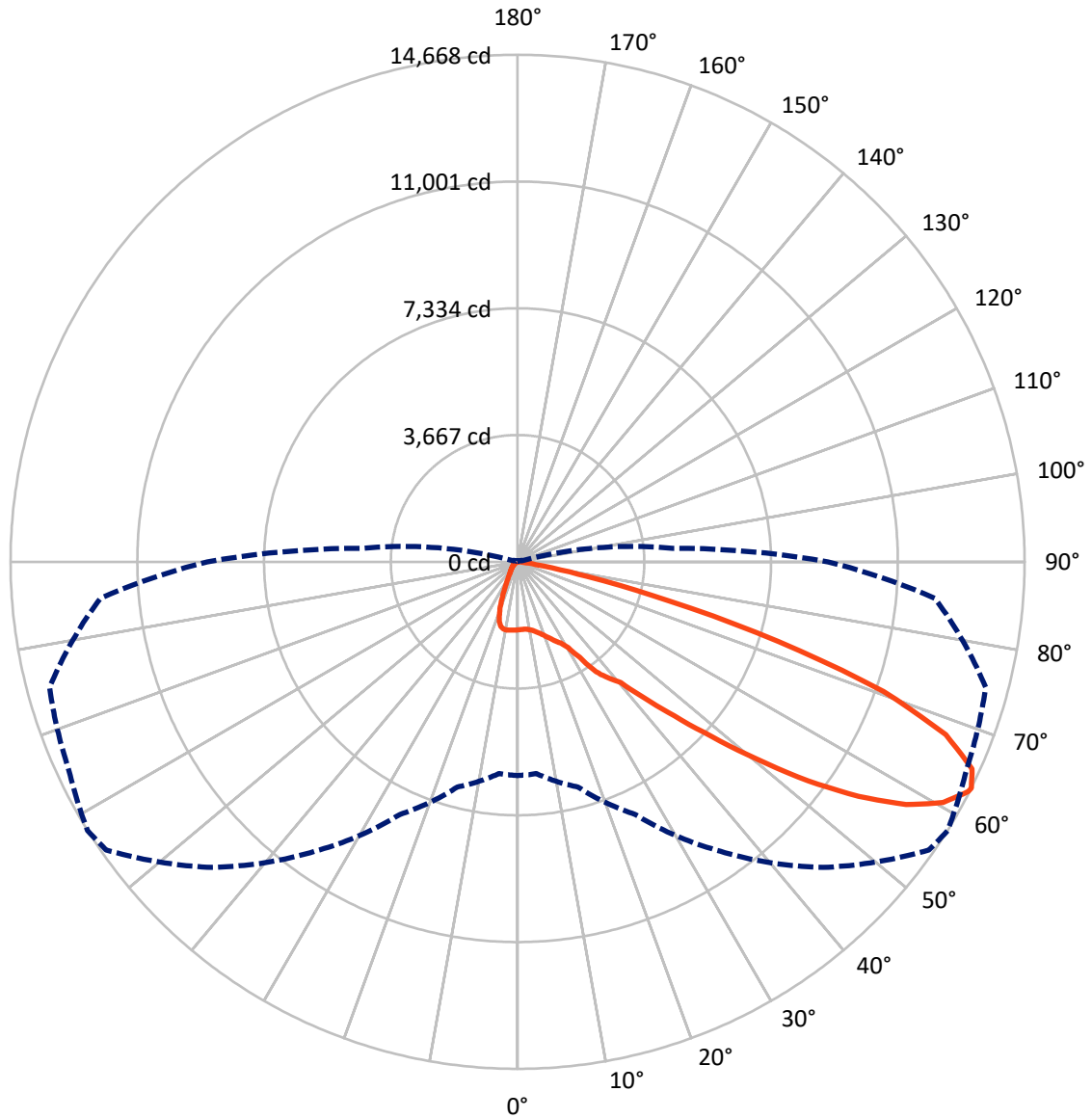
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral      - - - Horizontal Cone Through 63-Deg Vertical

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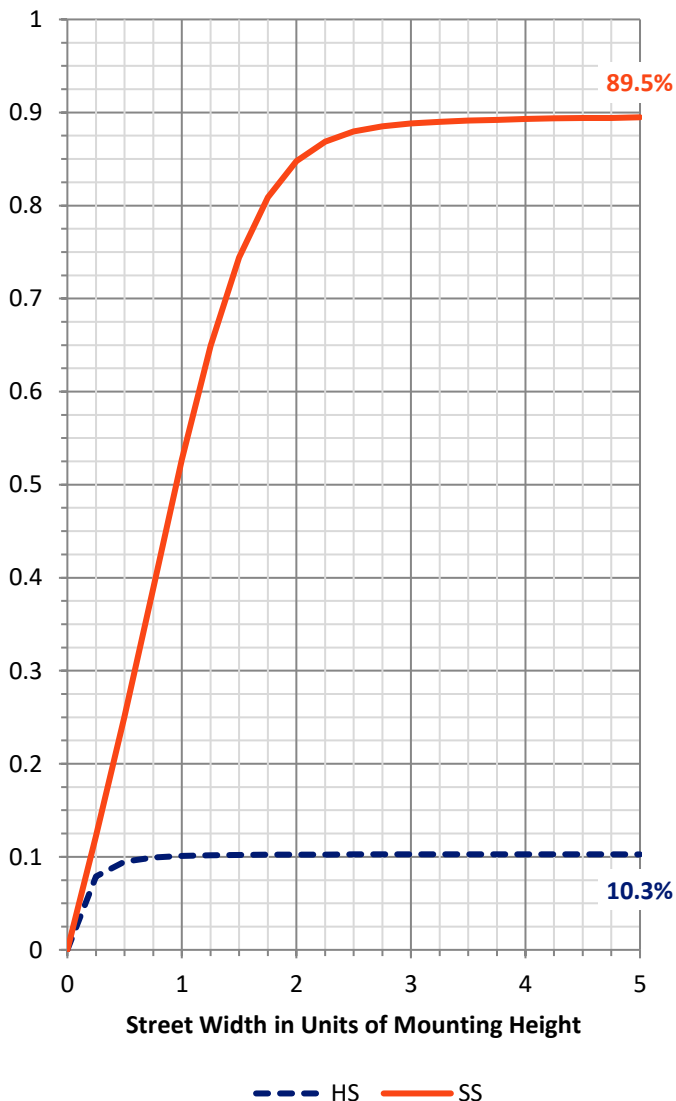
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1821.6	0.0	1821.6
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	15770.9	0.0	15770.9
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	17592.5	0.0	17592.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.4	1.0
10°-20°	502.2	2.9
20°-30°	871.5	5.0
30°-40°	1601.6	9.1
40°-50°	3014.9	17.1
50°-60°	5156.8	29.3
60°-70°	4937.6	28.1
70°-80°	1259.1	7.2
80°-90°	64.4	0.4
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°	17592.5	100.0
0°-180°	17592.5	100.0

**Coefficient of Utilization**



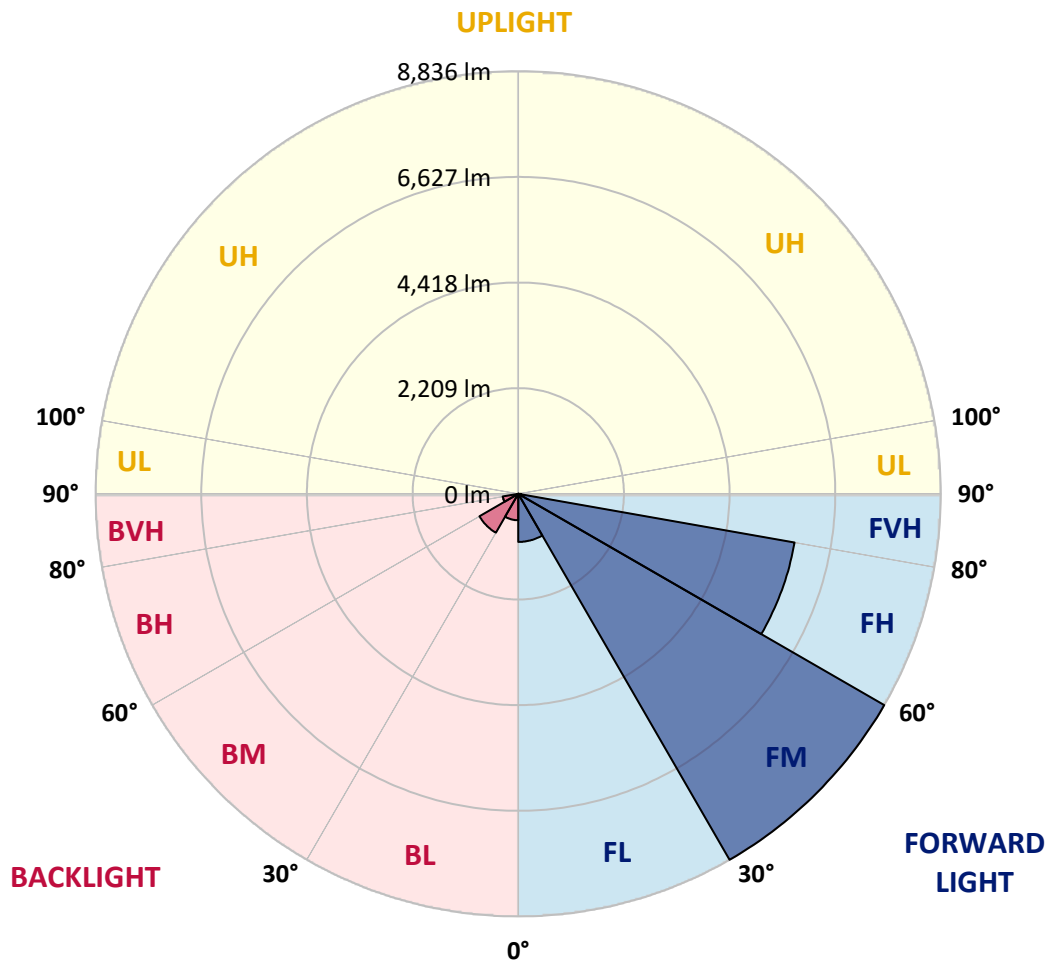
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1005.7	5.7			
FM (30°-60°)	8836.3	50.2			
FH (60°-80°)	5867.0	33.3			G3/7500
FVH (80°-90°)	61.9	0.4			G1/100
BL (0°-30°)	552.4	3.1	B2/1000		
BM (30°-60°)	936.9	5.3	B1/1000		
BH (60°-80°)	329.7	1.9	B1/500		G1/500
BVH (80°-90°)	2.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	1969.6	1969.6	1969.6	1969.6	1969.6	1969.6	1969.6	1969.6	1969.6	1969.6	1969.6
2.5°	1920.5	1927.1	1933.8	1936.4	1945.7	1955.0	1961.6	1960.2	1970.9	1976.1	1976.1
5°	1843.7	1843.7	1861.0	1876.9	1903.3	1929.8	1955.0	1960.2	1980.1	1998.7	2005.3
7.5°	1778.8	1782.8	1796.0	1825.2	1861.0	1907.3	1957.7	1969.6	2004.0	2045.0	2062.3
10°	1748.4	1751.0	1768.2	1798.7	1843.7	1907.3	1977.5	2000.0	2052.9	2117.9	2141.7
12.5°	1741.7	1745.7	1762.9	1797.4	1849.0	1925.9	2021.2	2045.0	2121.9	2205.3	2241.1
15°	1753.7	1756.3	1773.5	1810.6	1867.5	1958.9	2079.5	2112.6	2204.0	2300.7	2347.0
17.5°	1796.0	1793.4	1805.3	1835.7	1899.3	2000.0	2149.6	2189.4	2296.7	2429.2	2459.6
20°	1976.1	1958.9	1948.3	1921.9	1947.0	2058.3	2234.4	2292.7	2425.2	2560.3	2581.5
22.5°	2364.3	2325.8	2250.3	2147.1	2067.6	2137.7	2336.4	2404.0	2574.8	2707.3	2707.3
25°	2858.3	2809.2	2733.8	2508.7	2313.9	2268.9	2451.7	2536.5	2737.8	2871.5	2827.8
27.5°	3476.8	3438.4	3291.4	3029.1	2731.1	2498.0	2585.5	2663.6	2882.1	3043.8	2952.3
30°	3980.1	3961.6	3841.1	3606.7	3278.2	2937.7	2834.5	2886.1	3074.2	3261.0	3166.9
32.5°	4405.3	4405.3	4282.1	4063.6	3756.3	3454.3	3257.0	3294.1	3474.2	3690.0	3515.3
35°	4872.8	4856.9	4757.7	4549.7	4205.3	3939.1	3858.3	3908.7	4071.5	4231.8	3801.3
37.5°	5364.3	5358.9	5255.7	5054.3	4773.6	4438.4	4249.0	4262.3	4345.7	4443.8	4136.4
40°	5898.0	5906.0	5770.9	5646.4	5381.5	5038.4	4675.5	4592.1	4670.2	4947.1	4755.0
42.5°	6528.5	6509.9	6451.7	6282.2	6068.9	5863.6	5427.8	5397.4	5466.3	5763.0	5555.0
45°	7260.9	7287.5	7186.8	7092.7	6949.7	6778.8	6414.6	6361.6	6437.1	6898.0	6602.6
47.5°	7994.7	7969.5	8034.4	8017.2	8094.0	7966.9	7645.1	7536.5	7717.9	8155.0	7720.5
50°	8553.6	8581.4	8716.6	8913.9	9243.7	9315.3	9006.6	8969.6	9050.4	9331.2	8720.6
52.5°	8916.6	9009.3	9221.2	9728.5	10323.2	10785.4	10551.0	10531.2	10498.1	10573.6	9676.9
55°	9153.7	9247.7	9524.6	10271.6	11295.4	12046.4	12058.3	11973.6	11755.0	11700.7	10570.9
57.5°	9007.9	9026.5	9421.2	10419.9	11834.5	12945.7	13335.1	13250.4	12846.4	12641.1	11360.3
60°	8096.7	8135.1	8684.8	9858.3	11600.1	13239.7	14181.5	14143.1	13700.7	13468.9	11974.9
62.5°	6482.1	6593.4	7159.0	8467.6	10510.0	12744.4	14524.6	14633.2	14288.8	13969.6	12168.2
63°	6185.5	6149.7	6747.0	8062.2	10221.2	12499.3	14529.8	14667.6	14315.3	14017.3	12115.3
65°	4578.8	4686.1	5074.2	6357.6	8506.0	11359.0	14202.7	14446.4	14217.2	13806.6	11528.5
67.5°	2570.9	2565.6	2994.7	4160.3	5953.7	8910.0	12842.5	13357.7	13310.0	12389.4	9556.3
70°	1258.3	1278.2	1454.3	2156.3	3453.0	6147.0	10671.6	11227.8	11245.1	9731.1	6608.0
72.5°	569.6	578.8	704.6	1050.3	1774.8	3272.9	7353.7	7884.8	7786.8	6201.4	3649.0
75°	300.7	320.6	388.1	528.4	855.7	1349.7	4000.0	4513.9	4308.6	2833.1	1343.1
77.5°	222.5	229.1	263.6	336.5	458.3	525.9	1725.8	2052.9	1923.2	1025.2	445.1
80°	162.9	168.2	196.1	238.4	288.8	267.6	650.4	745.7	668.8	348.4	136.4
82.5°	99.4	100.7	143.1	177.5	181.4	149.6	214.5	230.4	241.1	196.1	74.2
85°	35.8	45.0	96.7	128.5	107.3	75.5	90.0	99.4	108.6	124.5	43.7
87.5°	4.0	5.3	46.4	62.2	30.5	27.8	33.1	37.1	39.7	46.4	21.2
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°	1969.6	1969.6	1969.6	1969.6	1969.6	1969.6	1969.6	1969.6	1969.6	1969.6	1969.6
2.5°	1981.5	1986.8	1982.8	1976.1	1974.8	1970.9	1962.9	1962.9	1962.9	1965.6	1962.9
5°	2010.6	2014.6	2005.3	1992.0	1977.5	1958.9	1939.1	1927.1	1925.9	1923.2	1916.5
7.5°	2066.3	2071.5	2050.4	2018.6	1978.8	1933.8	1891.4	1851.6	1833.1	1818.5	1818.5
10°	2147.1	2152.3	2110.0	2052.9	1973.6	1882.1	1781.5	1690.1	1618.5	1585.4	1577.5
12.5°	2243.7	2246.3	2176.2	2076.8	1945.7	1769.6	1555.0	1355.0	1215.9	1152.3	1145.7
15°	2349.7	2331.1	2238.4	2086.1	1866.2	1537.7	1166.9	921.8	777.5	735.1	751.0
17.5°	2457.0	2422.5	2286.1	2071.5	1687.4	1166.9	784.1	629.1	584.1	572.2	572.2
20°	2557.6	2509.9	2320.5	2007.9	1377.5	804.0	581.5	544.3	536.4	528.4	529.8
22.5°	2658.3	2585.5	2351.0	1866.2	1026.5	574.8	520.5	508.6	498.0	487.4	486.1
25°	2756.3	2655.6	2362.9	1604.0	699.4	494.1	475.5	459.6	438.4	426.5	423.8
27.5°	2858.3	2740.4	2355.0	1272.8	510.0	442.4	423.8	401.3	376.2	354.9	354.9
30°	3054.3	2902.0	2327.2	915.2	429.2	389.4	365.6	329.8	302.0	280.8	279.5
32.5°	3321.9	3112.6	2231.8	643.7	381.5	343.0	307.2	267.6	238.4	222.5	222.5
35°	3560.3	3324.5	2052.9	474.2	343.0	298.0	254.3	215.9	193.4	182.8	178.8
37.5°	3923.2	3634.5	1806.6	385.4	306.0	258.3	213.2	177.5	158.9	151.0	151.0
40°	4467.6	4013.3	1504.6	337.8	270.2	219.9	177.5	149.6	135.1	125.8	125.8
42.5°	5143.1	4476.8	1198.7	303.3	237.1	189.4	148.4	127.2	113.9	107.3	105.9
45°	5993.4	4965.6	923.2	271.5	210.6	161.6	125.8	107.3	94.0	90.0	91.4
47.5°	6880.8	5396.0	715.3	243.7	182.8	136.4	107.3	92.7	83.5	78.1	78.1
50°	7638.4	5692.7	543.0	212.0	161.6	115.3	94.0	83.5	75.5	72.8	71.5
52.5°	8271.5	5778.9	415.9	184.1	141.7	99.4	83.5	75.5	68.9	64.9	64.9
55°	8810.6	5703.3	325.8	155.0	119.2	86.1	74.2	67.6	59.6	55.6	54.3
57.5°	9125.9	5461.0	249.0	128.5	96.7	71.5	64.9	56.9	47.7	41.0	41.0
60°	9284.8	5108.6	190.7	105.9	74.2	56.9	53.0	42.4	33.1	27.8	26.5
62.5°	9094.1	4641.1	144.4	83.5	55.6	42.4	35.8	30.5	21.2	15.9	15.9
63°	8976.2	4506.0	139.1	79.5	51.7	39.7	33.1	27.8	18.6	14.6	13.2
65°	8182.8	3916.6	113.9	63.6	41.0	27.8	22.6	19.9	13.2	6.7	5.3
67.5°	6498.0	2996.1	90.0	47.7	29.1	19.9	13.2	11.9	4.0	0.0	0.0
70°	4393.4	1935.1	70.2	34.5	19.9	11.9	6.7	5.3	1.3	0.0	0.0
72.5°	2291.4	992.1	54.3	25.1	11.9	7.9	4.0	1.3	0.0	0.0	0.0
75°	810.6	337.8	39.7	15.9	7.9	4.0	1.3	0.0	0.0	0.0	0.0
77.5°	245.0	125.8	25.1	11.9	5.3	2.7	0.0	0.0	0.0	0.0	0.0
80°	86.1	46.4	14.6	7.9	4.0	1.3	0.0	0.0	0.0	0.0	0.0
82.5°	42.4	22.6	9.2	6.7	4.0	1.3	0.0	0.0	0.0	0.0	0.0
85°	23.8	14.6	7.9	6.7	4.0	2.7	0.0	0.0	0.0	0.0	0.0
87.5°	17.2	10.6	7.9	6.7	5.3	2.7	1.3	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)