

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: P453231

Luminaire Tested: **GALN-SA4B-727-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453231
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4B-727-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13556 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

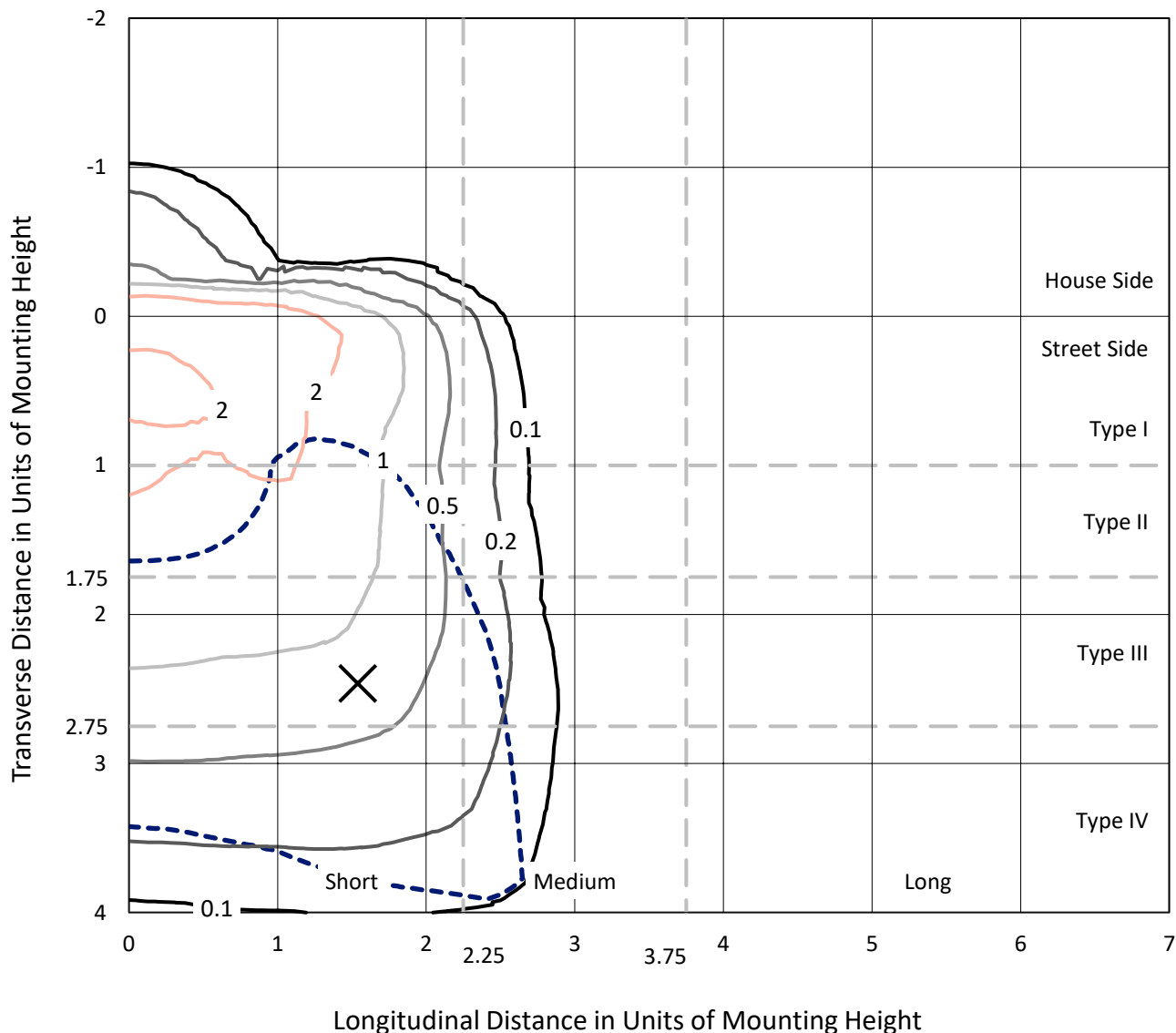
Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

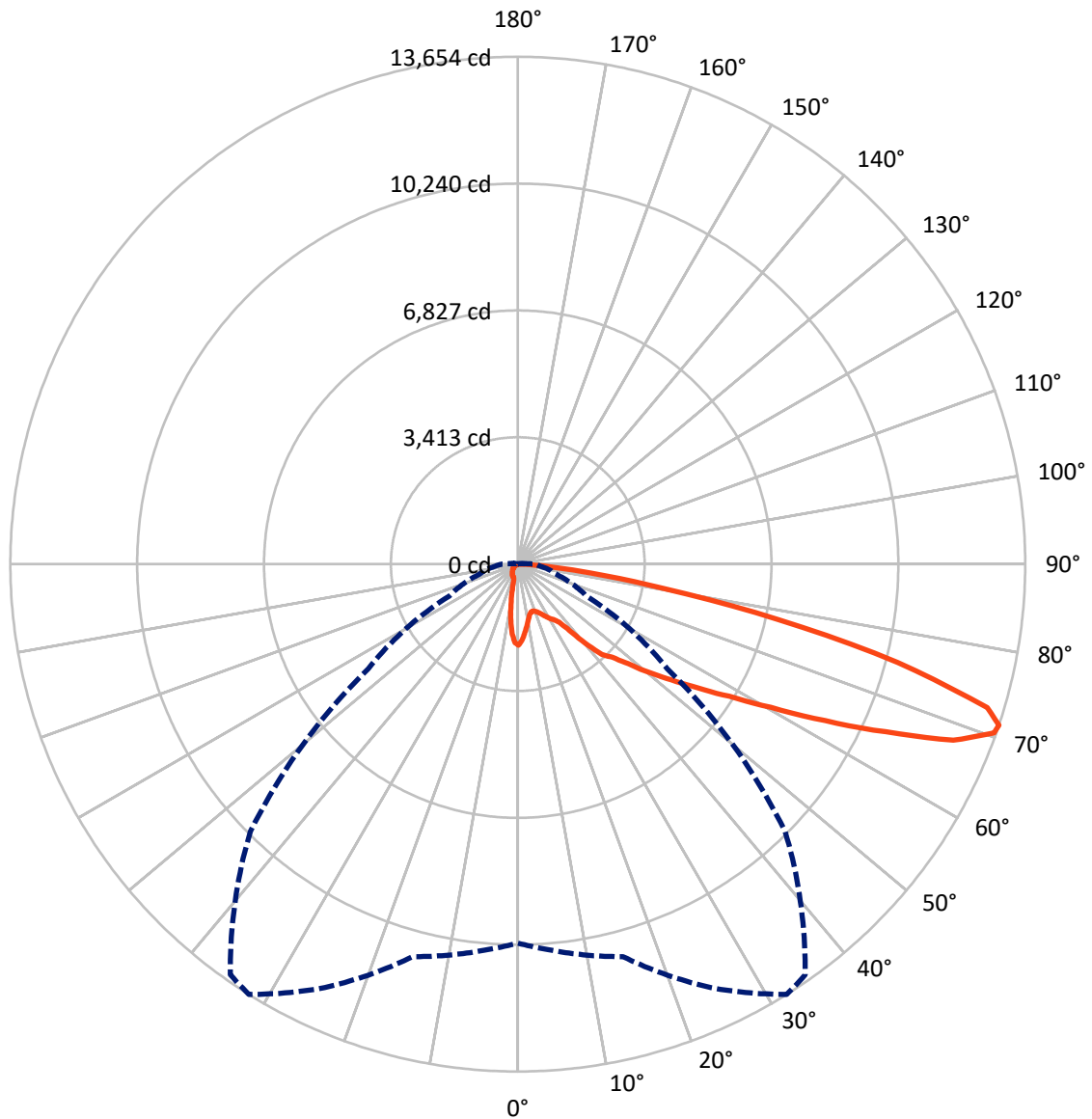
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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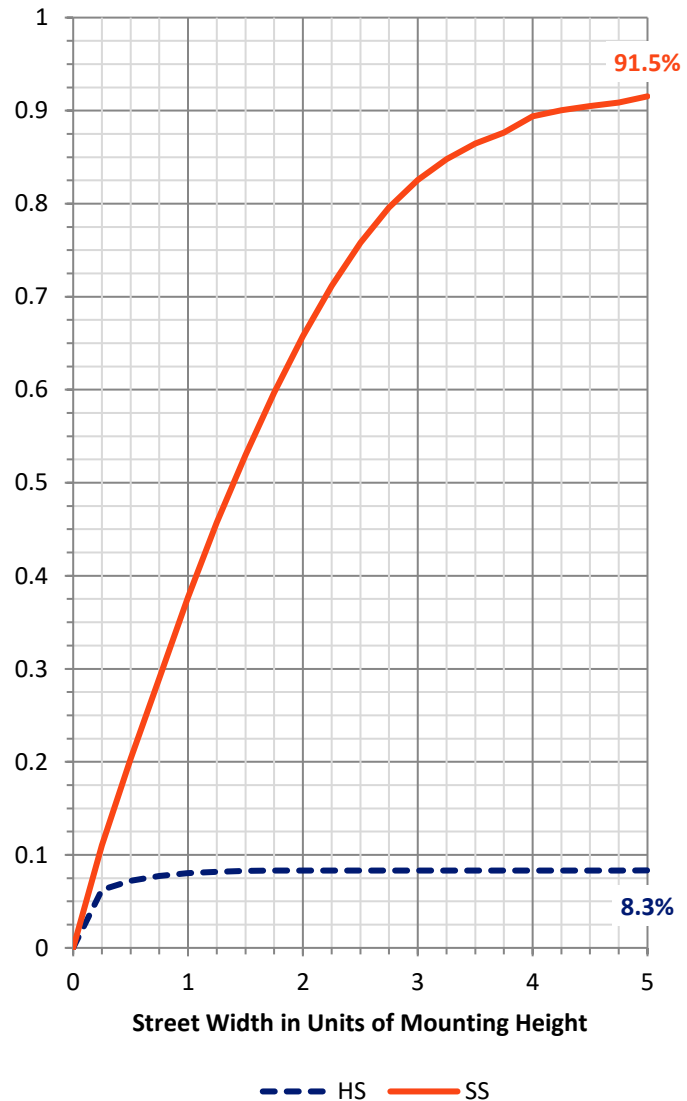
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1135.5	0.0	1135.5
	% Fixture	8.4	0.0	8.4
Street Side	Lumens	12420.5	0.0	12420.5
	% Fixture	91.6	0.0	91.6
Total	Lumens	13556.0	0.0	13556.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.3	1.3
10°-20°	384.7	2.8
20°-30°	598.5	4.4
30°-40°	997.1	7.4
40°-50°	1854.8	13.7
50°-60°	2977.9	22.0
60°-70°	4005.5	29.5
70°-80°	2376.5	17.5
80°-90°	183.7	1.4
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°	13556.0	100.0
0°-180°	13556.0	100.0



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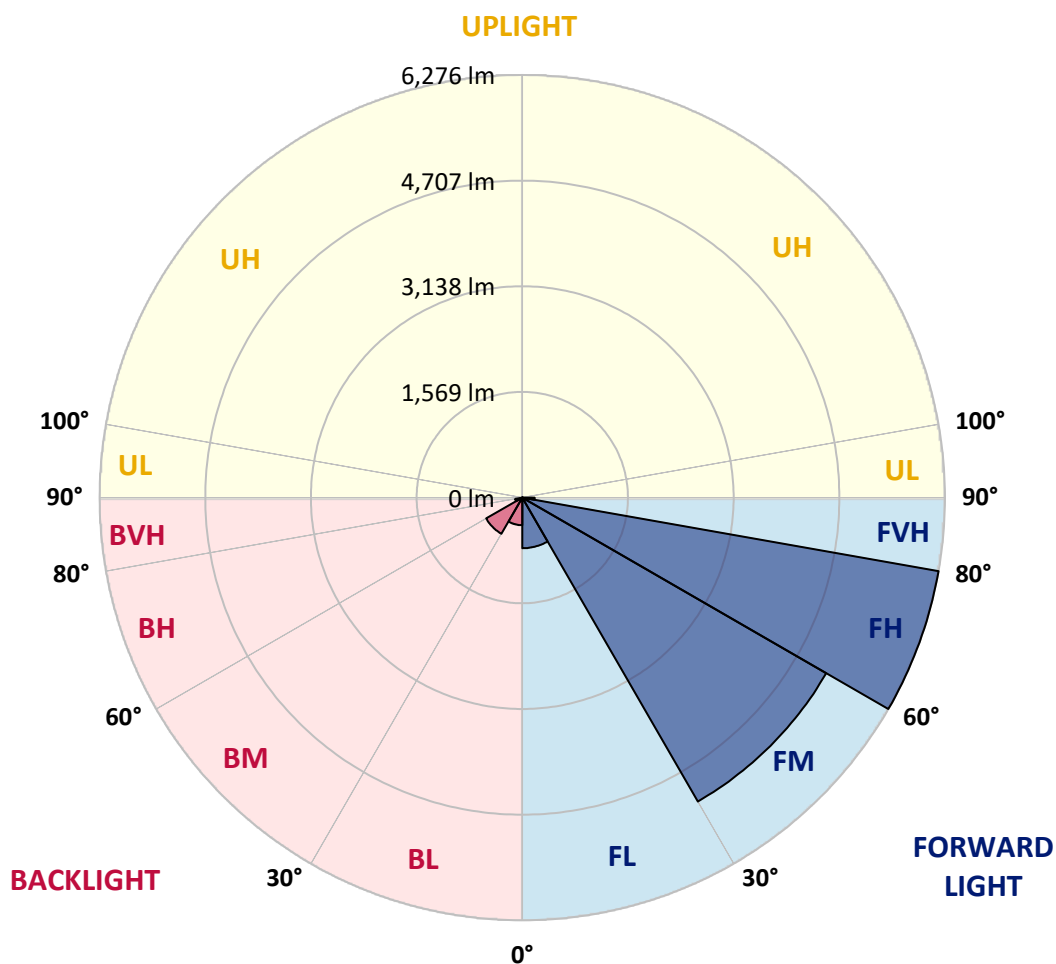
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	751.4	5.5			
FM (30°-60°)	5210.4	38.4			
FH (60°-80°)	6275.8	46.3			G3/7500
FVH (80°-90°)	183.0	1.3			G2/225
BL (0°-30°)	409.1	3.0	B1/500		
BM (30°-60°)	619.4	4.6	B1/1000		
BH (60°-80°)	106.2	0.8	B0/110		G0/110
BVH (80°-90°)	0.7	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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	2180.0	2180.0	2180.0	2180.0	2180.0	2180.0	2180.0	2180.0	2180.0	2180.0	2180.0
2.5°	2021.8	2042.7	2039.5	2046.8	2064.5	2071.8	2091.6	2113.4	2143.6	2164.4	2177.9
5°	1810.6	1826.2	1828.3	1864.7	1882.4	1902.2	1960.5	2023.9	2094.7	2150.9	2188.3
7.5°	1584.8	1593.1	1609.8	1657.6	1702.4	1722.2	1810.6	1920.9	2032.3	2137.4	2205.0
10°	1398.5	1407.9	1438.1	1489.1	1530.7	1556.7	1679.5	1817.9	1974.0	2130.1	2228.9
12.5°	1292.4	1297.6	1309.1	1354.8	1407.9	1436.0	1568.2	1726.3	1927.2	2133.2	2269.5
15°	1285.1	1283.0	1269.5	1288.2	1336.1	1365.2	1494.3	1663.9	1885.5	2143.6	2317.4
17.5°	1323.6	1318.4	1286.2	1286.2	1325.7	1349.6	1463.1	1630.6	1864.7	2167.5	2385.0
20°	1382.9	1374.6	1321.5	1317.4	1355.9	1380.9	1481.8	1632.7	1868.9	2212.3	2475.5
22.5°	1457.9	1448.5	1368.4	1370.4	1412.1	1437.0	1535.9	1670.1	1894.9	2267.4	2572.3
25°	1555.7	1545.3	1450.6	1446.4	1490.1	1512.0	1616.0	1736.7	1931.3	2336.1	2699.3
27.5°	1685.7	1663.9	1550.5	1544.2	1591.0	1619.1	1712.8	1826.2	1995.8	2430.8	2869.9
30°	1792.9	1769.0	1660.8	1644.1	1694.1	1715.9	1812.7	1946.9	2122.8	2596.2	3106.1
32.5°	1933.4	1898.0	1771.1	1727.4	1780.4	1808.5	1957.3	2171.7	2311.1	2771.1	3387.1
35°	2249.7	2227.9	2072.8	1919.9	1916.7	1952.1	2170.7	2398.5	2504.7	3043.7	3770.0
37.5°	2702.4	2686.8	2522.4	2317.4	2258.1	2241.4	2429.8	2648.3	2813.7	3418.3	4215.4
40°	3227.9	3191.5	3040.6	2866.8	2789.8	2740.9	2735.7	3019.8	3217.5	3927.2	4679.5
42.5°	3604.6	3538.0	3354.8	3342.3	3325.7	3274.7	3126.9	3562.9	3738.8	4474.5	5175.8
45°	4000.0	3899.1	3626.4	3579.6	3573.4	3570.2	3718.0	4206.0	4307.0	5067.6	5685.7
47.5°	4307.0	4226.8	4003.1	3982.3	4008.3	4079.1	4499.5	4888.6	4867.8	5596.2	6113.4
50°	4715.9	4655.6	4406.9	4446.4	4580.6	4696.1	5380.8	5632.7	5328.8	6012.5	6424.5
52.5°	5198.7	5087.4	4856.4	4963.6	5169.6	5362.1	6316.3	6284.1	5652.4	6325.7	6656.6
55°	5617.1	5538.0	5458.9	5570.2	5878.2	6118.6	7161.3	6772.1	5887.6	6577.5	6758.6
57.5°	6324.6	6305.9	6224.8	6338.2	6711.7	6961.5	7917.8	7150.9	6038.5	6708.6	6638.9
60°	7371.5	7341.3	7190.4	7335.1	7822.0	8214.3	8615.0	7491.1	6072.8	6657.6	6294.5
62.5°	8630.6	8527.6	8398.5	8611.8	9279.9	9452.6	9271.6	7693.0	5944.8	6251.8	5464.1
65°	9806.4	9700.3	9703.4	10152.9	10880.3	10997.9	10037.4	7662.8	5570.2	5235.2	4030.2
67.5°	10706.5	10688.8	10815.8	11693.0	12644.1	12562.9	10722.1	7211.2	4459.9	3393.3	2141.5
70°	10752.3	10786.7	11150.9	12631.6	13597.3	13468.2	10663.9	5861.6	2780.4	1560.9	843.9
71°	10198.7	10429.7	10933.4	12602.5	13653.5	13485.9	10172.7	4909.5	2039.5	1088.4	608.7
72.5°	8690.9	8812.7	9901.1	11860.5	13209.1	12851.2	8927.1	3441.2	1305.9	666.0	349.6
75°	4786.7	5086.4	6630.6	9304.9	10565.0	10250.8	5817.9	1634.8	651.4	364.2	144.6
77.5°	2278.9	2220.6	3235.2	5533.8	7163.4	7146.7	2931.3	726.3	379.8	246.6	72.8
80°	651.4	732.6	1238.3	2630.6	3977.1	4020.8	1125.9	350.7	263.3	192.5	37.5
82.5°	196.7	200.8	454.7	1163.4	1978.1	1864.7	422.5	179.0	189.4	153.0	21.9
85°	34.3	42.7	134.2	410.0	754.4	572.3	106.1	85.3	124.9	100.9	12.5
87.5°	2.1	3.1	44.7	46.8	66.6	38.5	18.7	12.5	27.1	27.1	7.3
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°	2180.0	2180.0	2180.0	2180.0	2180.0	2180.0	2180.0	2180.0	2180.0	2180.0	2180.0
2.5°	2187.3	2193.5	2189.4	2180.0	2164.4	2145.7	2120.7	2099.9	2082.2	2072.8	2084.3
5°	2200.8	2209.2	2188.3	2141.5	2070.8	1993.8	1906.3	1838.7	1785.6	1769.0	1762.7
7.5°	2221.6	2226.8	2170.7	2066.6	1916.7	1734.6	1575.4	1441.2	1337.1	1305.9	1260.1
10°	2248.7	2245.6	2139.4	1945.9	1682.6	1408.9	1162.3	979.2	840.8	790.8	786.7
12.5°	2290.3	2273.7	2099.9	1781.5	1403.7	1045.8	740.9	579.6	492.2	463.1	456.8
15°	2342.3	2302.8	2037.5	1589.0	1074.9	675.3	456.8	407.9	396.5	394.4	392.3
17.5°	2403.7	2341.3	1955.3	1352.8	755.5	438.1	381.9	380.9	381.9	379.8	378.8
20°	2487.0	2381.9	1857.4	1072.8	499.5	369.4	364.2	364.2	365.2	364.2	364.2
22.5°	2575.4	2429.8	1736.7	818.9	376.7	350.7	349.6	351.7	353.8	352.8	352.8
25°	2684.7	2492.2	1577.5	560.9	337.1	335.1	336.1	340.3	344.4	345.5	344.4
27.5°	2842.9	2569.2	1406.9	386.1	309.1	311.1	321.5	331.9	338.2	339.2	339.2
30°	3020.8	2654.5	1184.2	313.2	286.2	286.2	298.6	318.4	331.9	334.0	335.1
32.5°	3249.7	2753.4	937.6	282.0	264.3	262.2	273.7	297.6	322.6	329.9	329.9
35°	3532.8	2869.9	697.2	262.2	248.7	243.5	249.7	269.5	301.8	322.6	324.7
37.5°	3864.7	2980.2	509.9	244.5	234.1	226.8	231.0	246.6	272.6	303.8	312.2
40°	4171.7	3078.0	380.9	230.0	219.6	214.4	217.5	224.8	246.6	275.8	281.0
42.5°	4506.8	3154.0	302.8	214.4	205.0	202.9	202.9	206.0	220.6	237.3	238.3
45°	4840.8	3181.1	253.9	195.6	189.4	191.5	190.4	188.3	194.6	192.5	192.5
47.5°	5079.1	3148.8	210.2	177.9	177.9	181.1	175.9	168.6	165.5	153.0	154.0
50°	5242.4	3031.2	172.7	157.1	165.5	169.6	159.2	147.8	136.3	122.8	119.7
52.5°	5310.1	2822.1	141.5	130.1	146.7	151.9	139.4	125.9	108.2	96.8	93.7
55°	5266.4	2564.0	117.6	106.1	123.8	130.1	117.6	102.0	82.2	69.7	67.6
57.5°	5073.9	2256.0	99.9	84.3	98.9	103.0	94.7	78.0	58.3	45.8	45.8
60°	4740.9	1937.6	81.2	66.6	73.9	80.1	71.8	56.2	39.5	28.1	26.0
62.5°	4065.5	1573.4	65.6	52.0	52.0	57.2	49.9	40.6	25.0	14.6	13.5
65°	2935.5	1079.1	52.0	38.5	37.5	37.5	31.2	27.1	14.6	6.2	4.2
67.5°	1595.2	608.7	41.6	29.1	26.0	25.0	19.8	15.6	6.2	1.0	0.0
70°	627.5	234.1	32.3	19.8	16.6	15.6	10.4	7.3	4.2	0.0	0.0
71°	425.6	161.3	28.1	16.6	13.5	11.4	8.3	6.2	3.1	0.0	0.0
72.5°	243.5	99.9	21.9	12.5	10.4	8.3	6.2	4.2	3.1	0.0	0.0
75°	106.1	51.0	13.5	9.4	7.3	5.2	4.2	3.1	1.0	0.0	0.0
77.5°	54.1	28.1	9.4	7.3	4.2	3.1	2.1	1.0	0.0	0.0	0.0
80°	30.2	14.6	6.2	4.2	3.1	2.1	1.0	1.0	0.0	0.0	0.0
82.5°	16.6	8.3	3.1	2.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	10.4	5.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.2	2.1	0.0	0.0	0.0	0.0	1.0	1.0	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)