

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: P650840

Luminaire Tested: **GALN-SA4C-840-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P650840
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4C-840-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23618.7 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

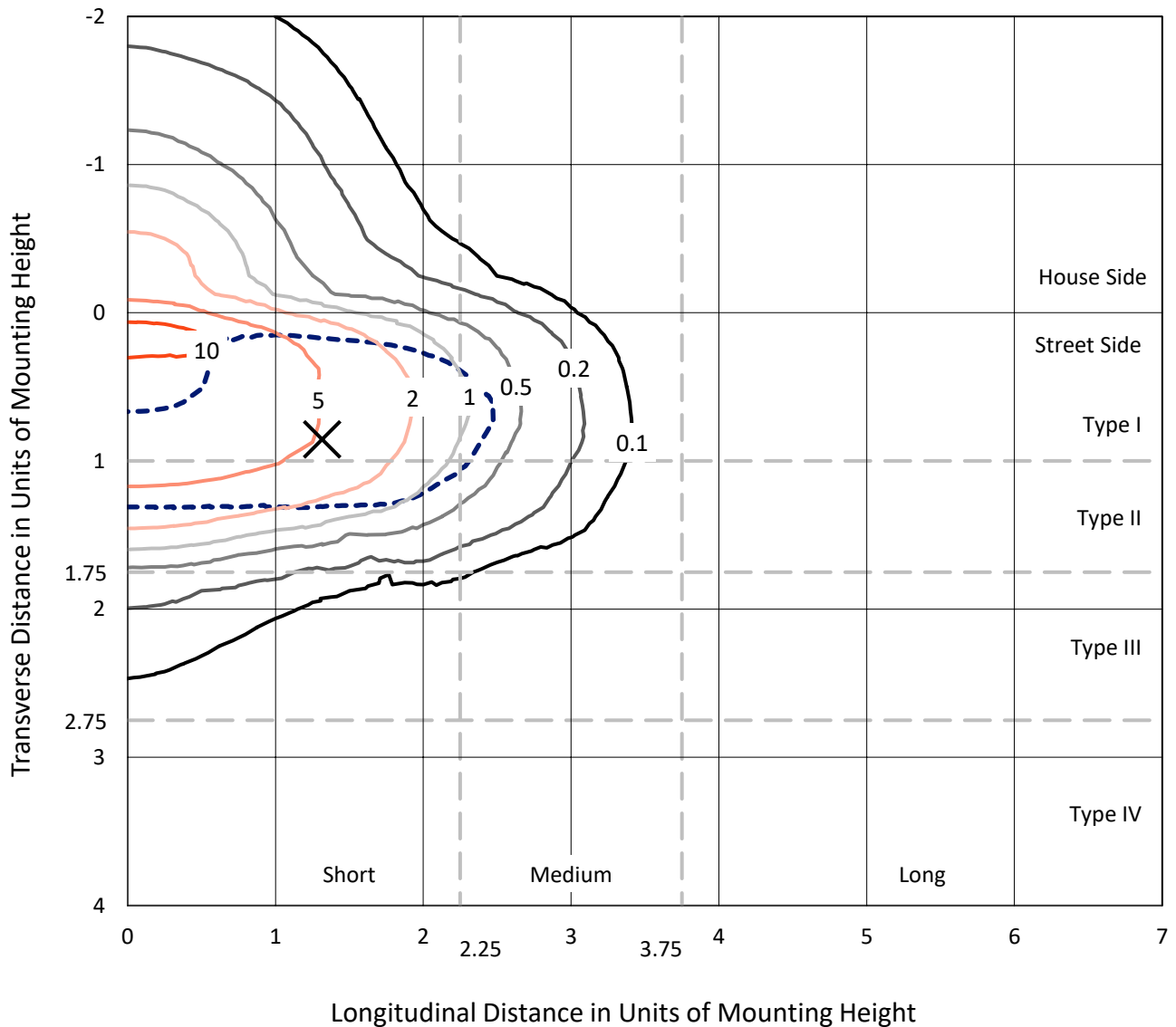
Input Watts (W): 213
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

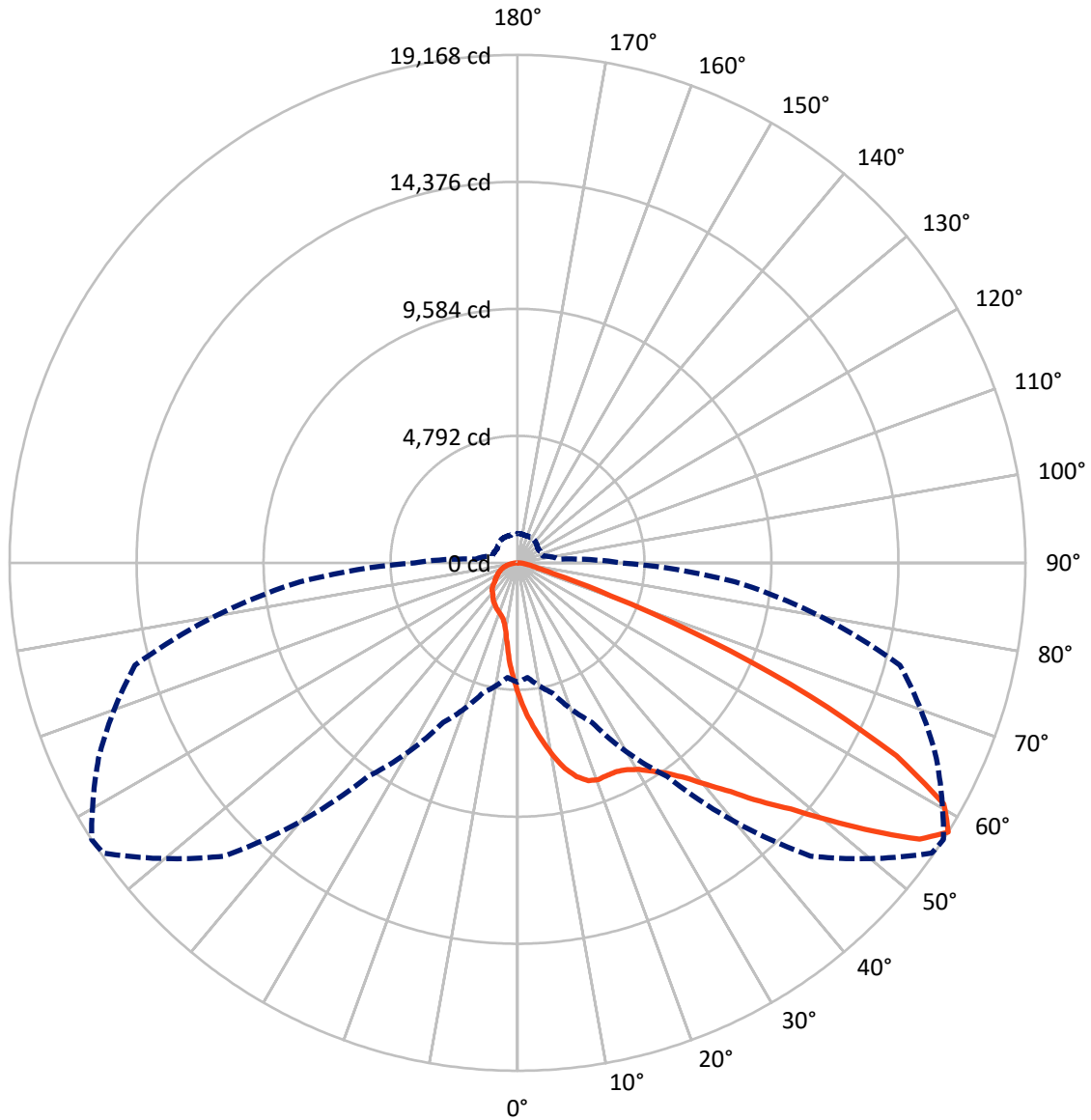
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3591.7	0.0	3591.7
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	20026.9	0.0	20026.9
	% Fixture	84.8	0.0	84.8
Total	Lumens	23618.7	0.0	23618.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	476.9	2.0
10°-20°	1405.4	6.0
20°-30°	2333.8	9.9
30°-40°	3515.3	14.9
40°-50°	5277.9	22.3
50°-60°	5915.9	25.0
60°-70°	3462.3	14.7
70°-80°	1024.1	4.3
80°-90°	207.0	0.9
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°	23618.7	100.0
0°-180°	23618.7	100.0

Coefficient of Utilization

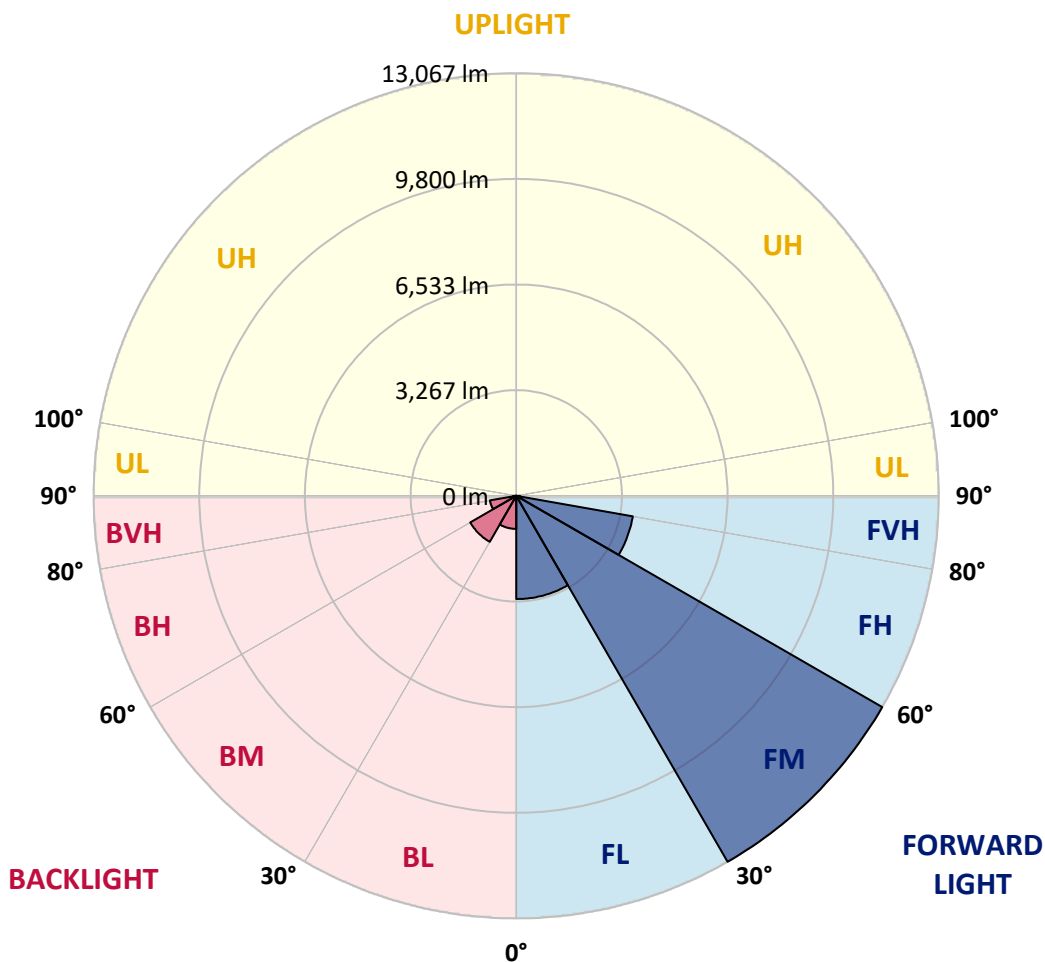


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3192.7	13.5			
FM (30°-60°)	13066.9	55.3			
FH (60°-80°)	3659.9	15.5			G2/5000
FVH (80°-90°)	107.4	0.5			G2/225
BL (0°-30°)	1023.4	4.3	B3/2500		
BM (30°-60°)	1642.3	7.0	B2/2500		
BH (60°-80°)	826.4	3.5	B2/1000		G2/1000
BVH (80°-90°)	99.6	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	4962.0	4962.0	4962.0	4962.0	4962.0	4962.0	4962.0	4962.0	4962.0	4962.0	4962.0
2.5°	6165.6	6098.4	6045.4	5998.9	5938.1	5773.9	5609.7	5607.1	5476.6	5274.9	5068.0
5°	7170.2	7079.7	7091.3	6946.6	6801.8	6563.8	6216.1	6198.0	5920.1	5542.5	5158.5
7.5°	7824.4	7825.7	7789.5	7706.8	7550.3	7280.1	6885.8	6796.5	6410.0	5837.3	5262.0
10°	7790.8	7825.7	7886.5	7957.5	8005.4	7872.3	7512.8	7404.2	6901.3	6194.1	5377.0
12.5°	7343.4	7397.8	7484.4	7662.8	7951.1	8170.9	8048.0	7960.1	7470.2	6549.6	5503.8
15°	7064.2	7096.5	7144.4	7264.6	7574.9	8101.1	8419.1	8372.6	8006.7	6951.7	5646.0
17.5°	6978.9	7011.2	7026.7	7100.4	7321.5	7860.6	8565.2	8647.9	8482.5	7321.5	5789.4
20°	7064.2	7079.7	7079.7	7123.7	7296.9	7719.7	8558.8	8725.5	8872.9	7765.0	5923.9
22.5°	7287.9	7294.3	7285.2	7300.8	7430.1	7758.5	8498.0	8704.9	9188.3	8141.1	6028.6
25°	7651.2	7661.5	7602.1	7565.8	7660.2	7929.1	8531.6	8721.7	9435.3	8500.6	6098.4
27.5°	8063.6	8076.5	8004.1	7920.1	7964.0	8139.9	8663.5	8834.1	9620.2	8854.8	6142.4
30°	8569.1	8574.2	8452.7	8351.9	8323.5	8454.1	8888.4	9047.5	9850.3	9272.4	6208.3
32.5°	9086.2	9125.0	8968.6	8826.4	8778.5	8818.6	9220.7	9374.5	10124.4	9721.0	6314.3
35°	9789.6	9796.1	9608.6	9435.3	9277.6	9329.3	9646.0	9757.2	10503.2	10239.5	6464.3
37.5°	10667.4	10726.9	10468.3	10145.1	9951.1	9876.2	10160.6	10282.2	11034.6	10875.6	6690.6
40°	11642.2	11664.2	11443.2	11241.5	10887.2	10670.0	10866.5	10998.3	11690.1	11634.5	6953.1
42.5°	12255.1	12302.9	12319.7	12299.0	12032.7	11668.1	11743.1	11805.1	12465.8	12346.8	7221.9
45°	12461.9	12533.0	12773.4	13282.8	13311.3	12951.9	12777.4	12836.9	13311.3	13065.7	7479.2
47.5°	12119.3	12240.8	12684.3	13728.9	14511.1	14538.2	14012.1	13881.5	14081.9	13661.7	7665.4
50°	11233.7	11259.6	11938.3	13451.0	15073.5	16054.8	15510.5	15267.4	14813.6	14102.6	7793.4
52.5°	9863.2	9893.0	10461.9	12159.3	14727.0	17114.9	17263.6	16829.2	15557.0	14445.2	7877.4
55°	7321.5	7493.4	8119.2	9759.8	13085.0	17015.4	18657.3	18410.3	16455.6	14716.7	8009.3
57.5°	4501.8	4344.0	5086.1	6640.1	9841.3	15647.5	19087.8	19168.0	17444.6	14944.2	8230.4
60°	2071.1	2102.2	2408.6	3424.8	5998.9	12240.8	17978.6	18485.3	17991.5	14936.4	8286.0
62.5°	1427.3	1398.9	1321.3	1503.6	2735.7	7741.7	15185.9	16044.4	16895.1	14472.3	8064.9
65°	1276.0	1247.6	1097.7	1047.2	1256.6	3374.3	11039.7	12123.2	14225.3	13301.0	7514.1
67.5°	1192.0	1153.3	998.1	899.9	897.3	1343.2	6509.6	7814.1	10551.0	11245.3	6510.9
70°	1104.1	1073.1	919.2	810.6	764.0	844.3	2861.1	3745.4	6850.9	8103.6	5071.9
72.5°	1016.2	980.0	841.7	725.3	664.6	632.2	1096.3	1426.0	3870.9	4858.5	3109.3
75°	888.2	870.1	752.4	656.7	590.8	510.7	695.6	793.8	1851.4	2231.5	1560.5
77.5°	777.0	757.7	668.4	574.1	526.2	415.0	493.8	539.2	780.9	905.0	704.6
80°	568.9	588.3	563.7	506.8	469.3	325.8	332.3	369.8	464.1	513.3	430.5
82.5°	360.7	396.9	434.4	390.5	355.6	257.3	230.1	244.3	316.7	336.1	191.3
85°	151.3	153.8	252.1	237.9	203.0	152.6	138.3	146.1	169.4	177.1	89.2
87.5°	58.2	56.9	89.2	82.8	63.3	44.0	44.0	49.1	67.2	62.1	28.4
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°	4962.0	4962.0	4962.0	4962.0	4962.0	4962.0	4962.0	4962.0	4962.0	4962.0	4962.0
2.5°	4978.8	4887.1	4704.7	4478.5	4313.0	4126.8	3962.6	3845.0	3801.0	3780.3	3741.5
5°	4974.9	4794.0	4416.4	4020.8	3702.8	3377.0	3101.6	2923.1	2907.7	2788.7	2777.1
7.5°	4976.2	4699.6	4098.4	3516.6	3031.7	2698.2	2470.7	2411.1	2340.1	2322.0	2331.0
10°	4980.1	4579.3	3757.1	3017.5	2548.2	2329.7	2244.4	2221.2	2223.7	2231.5	2232.8
12.5°	4985.3	4462.9	3402.9	2638.7	2276.8	2186.3	2177.2	2197.9	2219.8	2236.6	2240.5
15°	4991.8	4329.8	3057.6	2333.6	2141.0	2133.2	2163.0	2197.9	2228.9	2253.5	2257.3
17.5°	4984.0	4174.6	2768.0	2146.1	2066.0	2103.5	2152.6	2196.6	2225.0	2248.3	2250.9
20°	4965.9	4001.4	2488.8	2014.3	2019.5	2080.2	2133.2	2174.6	2205.6	2217.3	2226.3
22.5°	4896.0	3794.6	2245.7	1912.2	1963.8	2047.9	2111.2	2135.8	2100.9	2076.3	2082.8
25°	4777.1	3525.6	2019.5	1829.4	1913.4	2002.7	2067.3	2007.8	1979.4	1969.0	1974.2
27.5°	4628.4	3230.9	1848.8	1742.8	1848.8	1952.2	1934.1	1923.8	1910.8	1894.0	1897.9
30°	4468.1	2942.6	1704.0	1675.5	1779.0	1838.4	1846.2	1863.0	1848.8	1823.0	1833.3
32.5°	4319.5	2671.0	1594.1	1618.7	1729.9	1720.8	1779.0	1798.4	1732.5	1645.8	1649.7
35°	4192.7	2419.0	1511.4	1563.1	1645.8	1649.7	1707.9	1640.6	1569.6	1528.2	1530.8
37.5°	4097.1	2222.4	1457.0	1515.2	1538.5	1587.6	1556.6	1521.7	1512.6	1484.2	1485.5
40°	4040.2	2050.4	1422.1	1477.7	1473.9	1507.5	1407.9	1442.8	1455.8	1446.7	1448.0
42.5°	3983.3	1928.9	1386.0	1426.0	1424.7	1358.8	1336.9	1366.5	1400.2	1404.0	1401.4
45°	3938.1	1834.6	1348.5	1347.2	1373.0	1269.6	1263.1	1281.3	1329.0	1352.3	1351.1
47.5°	3887.6	1755.7	1291.6	1255.4	1263.1	1214.0	1203.6	1211.4	1269.6	1307.1	1317.4
50°	3824.3	1676.9	1220.5	1171.3	1139.1	1162.3	1164.9	1166.1	1224.3	1267.0	1276.0
52.5°	3773.9	1617.4	1139.1	1102.8	1064.0	1115.8	1135.1	1137.7	1172.6	1207.5	1214.0
55°	3803.6	1583.8	1058.8	1033.0	998.1	1067.9	1105.4	1110.5	1118.4	1144.2	1148.0
57.5°	3892.8	1591.5	994.2	960.6	934.8	1011.1	1074.4	1078.2	1073.1	1104.1	1109.3
60°	3920.0	1587.6	946.4	880.4	864.9	950.2	1029.1	1036.9	1035.6	1080.9	1089.9
62.5°	3806.2	1538.5	898.5	813.2	802.9	888.2	965.8	996.8	1003.2	1067.9	1079.5
65°	3538.6	1437.7	835.2	742.1	742.1	822.2	905.0	947.6	965.8	1052.4	1065.3
67.5°	3185.6	1318.7	770.5	681.4	678.8	758.9	840.3	884.3	912.7	1030.4	1038.1
70°	2643.9	1158.4	690.4	615.4	615.4	687.8	761.5	814.5	855.9	989.0	989.0
72.5°	1811.3	963.2	593.4	540.4	541.7	609.0	683.9	743.4	792.6	906.3	908.9
75°	1145.4	752.4	487.4	460.3	465.4	528.8	606.4	668.4	766.7	895.9	899.9
77.5°	609.0	528.8	387.9	381.4	387.9	446.1	532.7	618.0	769.3	777.0	764.0
80°	394.3	374.9	306.4	293.5	296.0	359.4	474.5	586.9	618.0	625.7	597.3
82.5°	214.6	237.9	217.2	204.3	204.3	280.6	404.7	466.8	443.5	368.4	351.6
85°	91.8	111.2	112.4	98.2	94.4	173.2	271.5	254.7	236.6	226.2	223.7
87.5°	25.8	36.2	36.2	27.2	20.7	47.9	54.3	15.5	0.0	1.3	2.6
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)