

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: P647375

Luminaire Tested: **GALN-SA4D-835-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P647375
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-SA4D-835-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24196.3 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G2

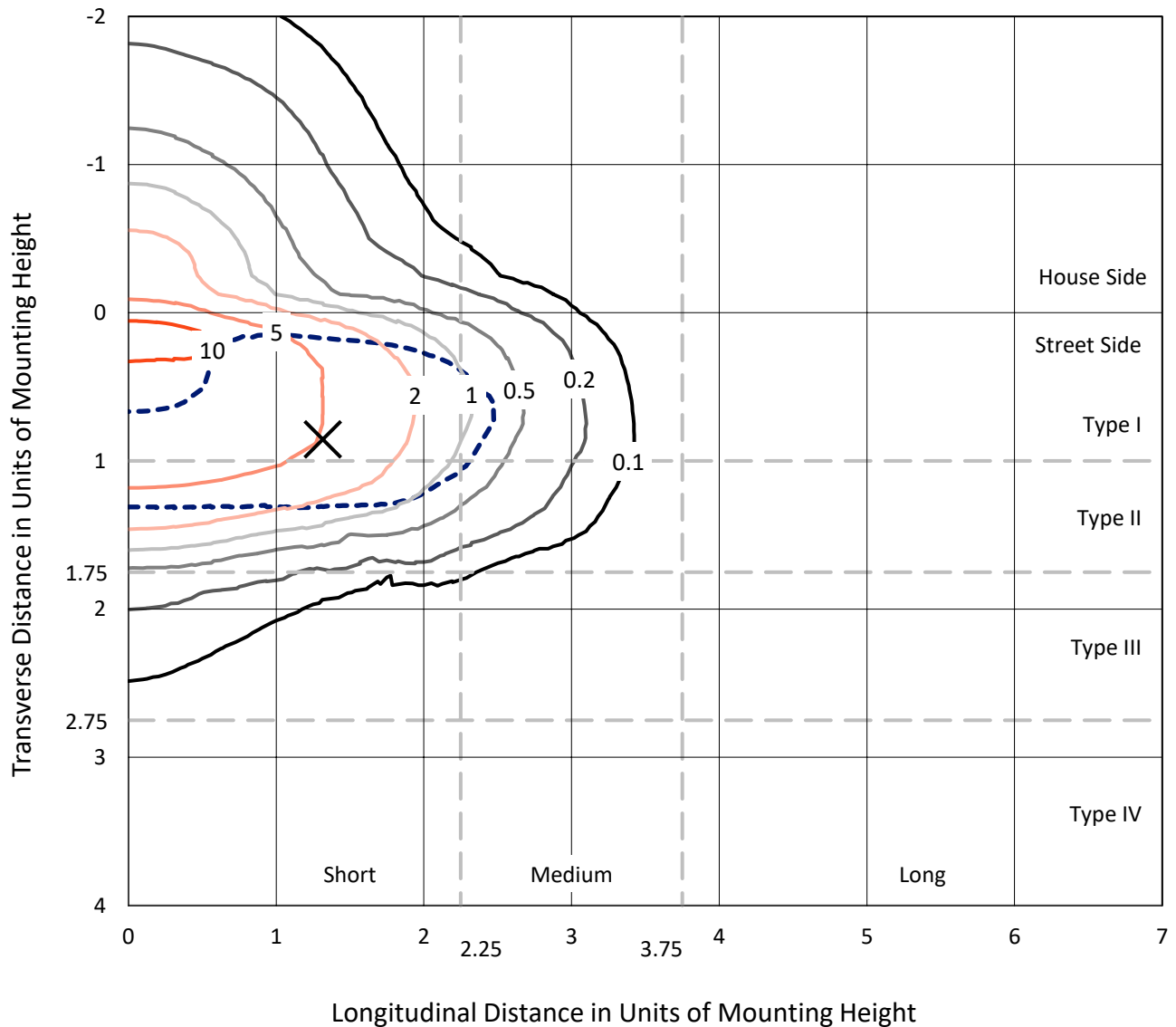
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

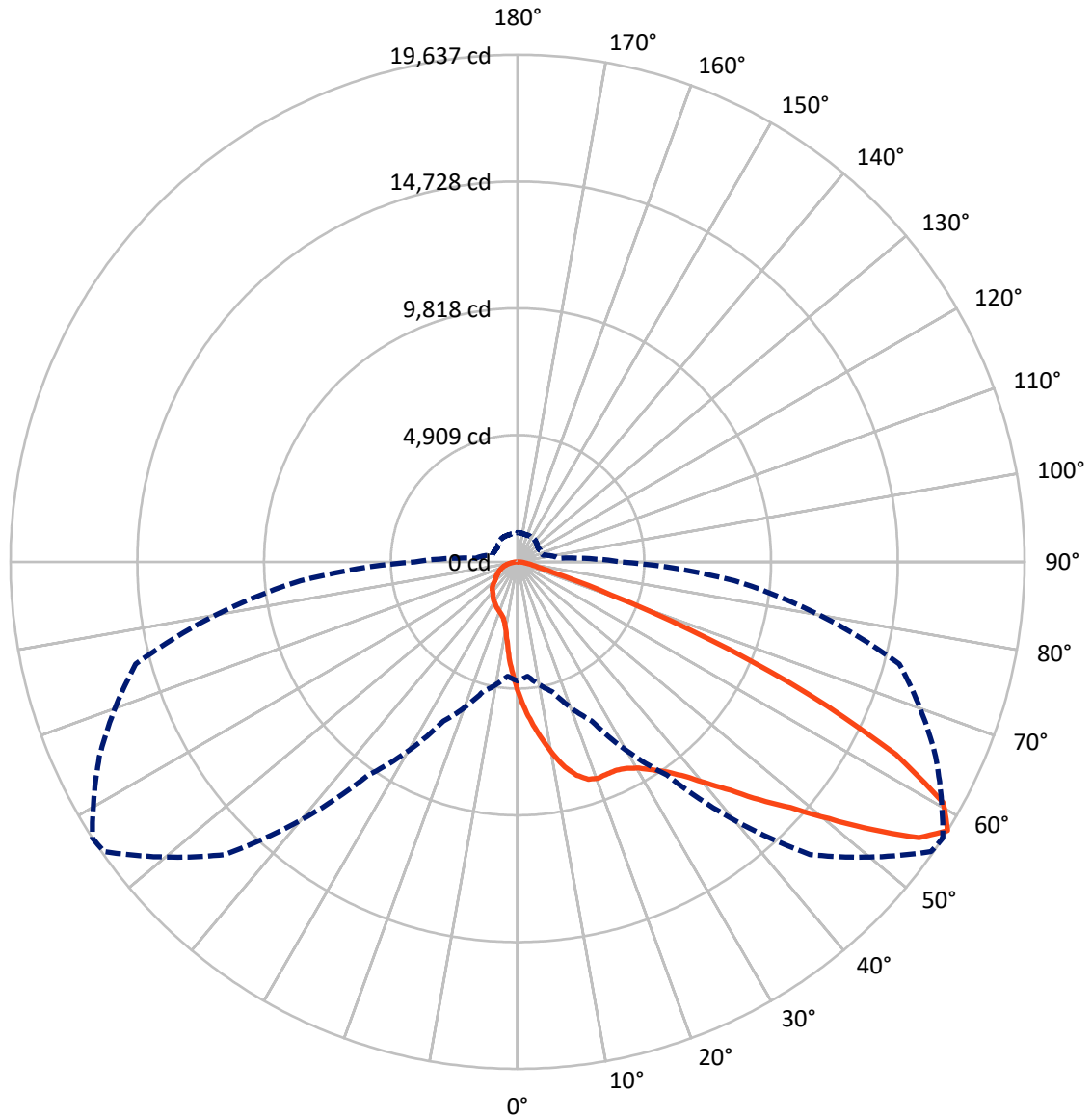
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.4 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	3679.6	0.0	3679.6
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	20516.7	0.0	20516.7
	% Fixture	84.8	0.0	84.8
Total	Lumens	24196.3	0.0	24196.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	488.6	2.0
10°-20°	1439.8	6.0
20°-30°	2390.8	9.9
30°-40°	3601.3	14.9
40°-50°	5407.0	22.3
50°-60°	6060.6	25.0
60°-70°	3546.9	14.7
70°-80°	1049.2	4.3
80°-90°	212.1	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°	24196.3	100.0
0°-180°	24196.3	100.0

Coefficient of Utilization



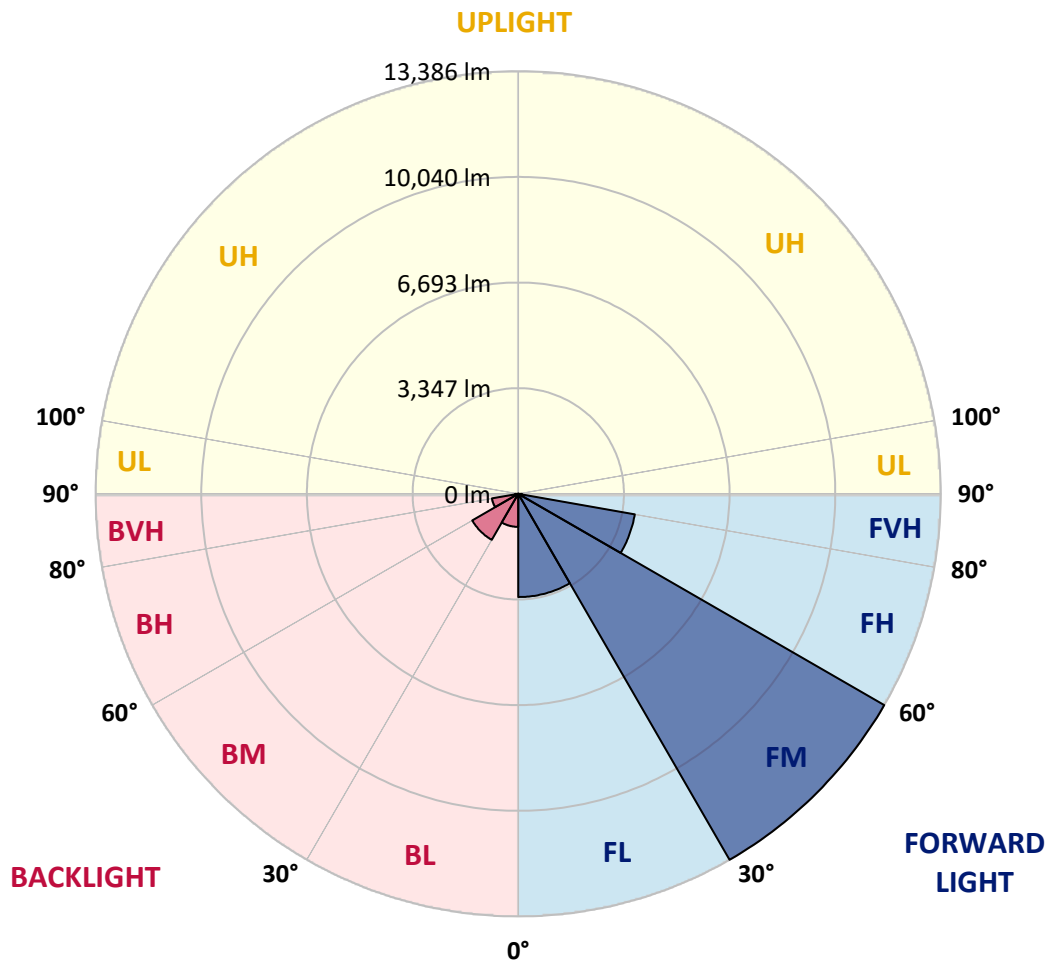
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3270.8	13.5			
FM (30°-60°)	13386.4	55.3			
FH (60°-80°)	3749.5	15.5			G2/5000
FVH (80°-90°)	110.0	0.5			G2/225
BL (0°-30°)	1048.4	4.3	B3/2500		
BM (30°-60°)	1682.4	7.0	B2/2500		
BH (60°-80°)	846.6	3.5	B2/1000		G2/1000
BVH (80°-90°)	102.0	0.4			G2/225
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°	5083.4	5083.4	5083.4	5083.4	5083.4	5083.4	5083.4	5083.4	5083.4	5083.4	5083.4
2.5°	6316.5	6247.6	6193.3	6145.6	6083.4	5915.1	5746.9	5744.2	5610.5	5403.9	5192.0
5°	7345.6	7252.9	7264.8	7116.5	6968.1	6724.4	6368.1	6349.6	6064.8	5678.1	5284.7
7.5°	8015.7	8017.1	7980.0	7895.2	7734.9	7458.2	7054.2	6962.8	6566.8	5980.0	5390.6
10°	7981.4	8017.1	8079.3	8152.2	8201.2	8064.7	7696.6	7585.3	7070.1	6345.6	5508.5
12.5°	7523.1	7578.7	7667.4	7850.2	8145.5	8370.7	8244.9	8154.9	7652.9	6709.8	5638.3
15°	7237.0	7270.1	7319.1	7442.3	7760.2	8299.2	8625.1	8577.4	8202.5	7121.7	5784.0
17.5°	7149.6	7182.7	7198.6	7274.1	7500.5	8052.8	8774.7	8859.5	8689.9	7500.5	5931.0
20°	7237.0	7252.9	7252.9	7297.9	7475.4	7908.5	8768.0	8938.9	9089.9	7954.8	6068.8
22.5°	7466.1	7472.7	7463.5	7479.4	7611.8	7948.2	8705.8	8917.7	9413.1	8340.3	6176.1
25°	7838.3	7848.9	7788.0	7750.8	7847.5	8123.1	8740.2	8935.0	9666.1	8708.4	6247.6
27.5°	8260.8	8274.0	8199.9	8113.8	8158.8	8339.0	8875.4	9050.1	9855.5	9071.4	6292.6
30°	8778.7	8783.9	8659.4	8556.2	8527.0	8660.8	9105.8	9268.7	10091.2	9499.2	6360.2
32.5°	9308.5	9348.2	9188.0	9042.2	8993.2	9034.3	9446.2	9603.8	10372.0	9958.7	6468.8
35°	10029.0	10035.6	9843.6	9666.1	9504.4	9557.5	9881.9	9995.9	10760.1	10489.9	6622.4
37.5°	10928.3	10989.2	10724.4	10393.2	10194.5	10117.7	10409.1	10533.6	11304.5	11141.5	6854.2
40°	11927.0	11949.4	11723.0	11516.4	11153.4	10930.9	11132.3	11267.4	11976.0	11919.0	7123.0
42.5°	12554.8	12603.8	12620.9	12599.8	12326.9	11953.4	12030.2	12093.8	12770.7	12648.8	7398.6
45°	12766.7	12839.6	13085.9	13607.8	13636.9	13268.6	13089.9	13150.8	13636.9	13385.2	7662.1
47.5°	12415.7	12540.2	12994.5	14064.6	14866.0	14893.8	14354.7	14220.9	14426.2	13995.8	7852.9
50°	11508.4	11534.9	12230.2	13779.9	15442.1	16447.4	15889.8	15640.8	15175.9	14447.4	7983.9
52.5°	10104.5	10134.9	10717.7	12456.7	15087.2	17533.5	17685.8	17240.8	15937.5	14798.5	8070.1
55°	7500.5	7676.7	8317.7	9998.5	13405.0	17431.5	19113.6	18860.6	16858.0	15076.6	8205.1
57.5°	4611.9	4450.3	5210.5	6802.5	10082.0	16030.2	19554.6	19636.8	17871.2	15309.7	8431.7
60°	2121.9	2153.6	2467.5	3508.5	6145.6	12540.2	18418.2	18937.4	18431.5	15301.7	8488.6
62.5°	1462.3	1433.1	1353.7	1540.4	2802.6	7931.0	15557.3	16436.8	17308.3	14826.3	8262.1
65°	1307.3	1278.1	1124.5	1072.9	1287.4	3456.9	11309.7	12419.6	14573.3	13626.2	7697.9
67.5°	1221.2	1181.5	1022.5	921.8	919.2	1376.1	6668.7	8005.2	10809.1	11520.4	6670.1
70°	1131.1	1099.3	941.7	830.4	782.8	864.9	2931.1	3837.0	7018.4	8301.8	5195.9
72.5°	1041.1	1004.0	862.2	743.1	680.8	647.7	1123.1	1460.9	3965.5	4977.4	3185.4
75°	909.9	891.4	770.9	672.8	605.3	523.2	712.6	813.2	1896.7	2286.0	1598.7
77.5°	796.0	776.1	684.7	588.0	539.1	425.2	506.0	552.3	800.0	927.2	721.8
80°	582.8	602.7	577.5	519.2	480.8	333.8	340.4	378.8	475.5	525.8	441.1
82.5°	369.5	406.6	445.1	400.0	364.3	263.6	235.8	250.3	324.5	344.4	196.0
85°	155.0	157.6	258.3	243.7	208.0	156.3	141.7	149.6	173.5	181.4	91.4
87.5°	59.6	58.3	91.4	84.8	64.9	45.0	45.0	50.3	68.9	63.6	29.1
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°	5083.4	5083.4	5083.4	5083.4	5083.4	5083.4	5083.4	5083.4	5083.4	5083.4	5083.4
2.5°	5100.5	5006.5	4819.8	4588.0	4418.5	4227.7	4059.5	3939.0	3893.9	3872.8	3833.0
5°	5096.6	4911.2	4524.4	4119.1	3793.3	3459.5	3177.4	2994.7	2978.8	2856.9	2845.0
7.5°	5098.0	4814.5	4198.6	3602.6	3105.9	2764.2	2531.0	2470.1	2397.3	2378.8	2388.1
10°	5101.9	4691.3	3848.9	3091.4	2610.5	2386.7	2299.3	2275.5	2278.1	2286.0	2287.4
12.5°	5107.2	4572.1	3486.1	2703.2	2332.4	2239.7	2230.5	2251.6	2274.1	2291.4	2295.4
15°	5113.9	4435.7	3132.4	2390.7	2193.3	2185.4	2215.9	2251.6	2283.4	2308.6	2312.5
17.5°	5105.9	4276.7	2835.7	2198.7	2116.5	2154.9	2205.2	2250.3	2279.5	2303.3	2305.9
20°	5087.3	4099.2	2549.6	2063.5	2068.8	2131.1	2185.4	2227.8	2259.6	2271.5	2280.7
22.5°	5015.8	3887.4	2300.6	1958.9	2011.9	2098.0	2162.9	2188.0	2152.3	2127.1	2133.8
25°	4894.0	3611.8	2068.8	1874.1	1960.2	2051.6	2117.9	2056.9	2027.8	2017.2	2022.5
27.5°	4741.6	3309.9	1894.0	1785.4	1894.0	1999.9	1981.5	1970.8	1957.6	1940.4	1944.3
30°	4577.4	3014.6	1745.7	1716.5	1822.5	1883.4	1891.3	1908.6	1894.0	1867.5	1878.1
32.5°	4425.1	2736.4	1633.1	1658.2	1772.2	1762.8	1822.5	1842.3	1774.8	1686.0	1690.0
35°	4295.3	2478.1	1548.3	1601.3	1686.0	1690.0	1749.6	1680.8	1607.9	1565.5	1568.2
37.5°	4197.3	2276.8	1492.7	1552.3	1576.1	1626.4	1594.7	1559.0	1549.6	1520.5	1521.8
40°	4139.0	2100.6	1456.9	1513.9	1509.9	1544.3	1442.4	1478.1	1491.4	1482.1	1483.4
42.5°	4080.8	1976.1	1419.8	1460.9	1459.6	1392.0	1369.5	1400.0	1434.4	1438.4	1435.7
45°	4034.4	1879.4	1381.4	1380.1	1406.6	1300.6	1294.0	1312.5	1361.6	1385.4	1384.1
47.5°	3982.7	1798.6	1323.2	1286.1	1294.0	1243.7	1233.1	1241.1	1300.6	1339.1	1349.7
50°	3917.8	1717.8	1250.3	1199.9	1166.9	1190.7	1193.4	1194.7	1254.3	1298.0	1307.3
52.5°	3866.1	1656.9	1166.9	1129.8	1090.0	1143.0	1162.9	1165.6	1201.3	1237.1	1243.7
55°	3896.6	1622.5	1084.8	1058.2	1022.5	1094.0	1132.5	1137.7	1145.7	1172.2	1176.1
57.5°	3988.0	1630.4	1018.5	984.1	957.6	1035.8	1100.7	1104.7	1099.3	1131.1	1136.4
60°	4015.9	1626.4	969.5	901.9	886.0	973.5	1054.3	1062.2	1060.9	1107.2	1116.6
62.5°	3899.3	1576.1	920.5	833.1	822.5	909.9	989.4	1021.2	1027.8	1094.0	1105.9
65°	3625.1	1472.8	855.6	760.2	760.2	842.4	927.2	970.8	989.4	1078.1	1091.3
67.5°	3263.5	1351.0	789.4	698.0	695.4	777.4	860.9	905.9	935.1	1055.6	1063.5
70°	2708.6	1186.7	707.3	630.5	630.5	704.6	780.1	834.4	876.8	1013.2	1013.2
72.5°	1855.6	986.7	607.9	553.7	555.0	623.8	700.6	761.5	811.9	928.5	931.1
75°	1173.5	770.9	499.3	471.5	476.8	541.7	621.2	684.7	785.4	917.8	921.8
77.5°	623.8	541.7	397.4	390.7	397.4	457.0	545.7	633.1	788.1	796.0	782.8
80°	403.9	384.1	313.9	300.7	303.3	368.2	486.1	601.3	633.1	641.0	611.9
82.5°	219.9	243.7	222.5	209.3	209.3	287.4	414.6	478.1	454.3	377.5	360.3
85°	94.0	113.9	115.3	100.7	96.7	177.5	278.1	260.9	242.4	231.8	229.1
87.5°	26.5	37.1	37.1	27.8	21.2	49.0	55.6	15.9	0.0	1.3	2.7
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)