

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: P458481

Luminaire Tested: **GALN-SA9D-827-U-T4FT**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P458481  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA9D-827-U-T4FT  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(9) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 51441 lumens  
Efficiency: N/A  
Efficacy: 93.2 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U0 - G5

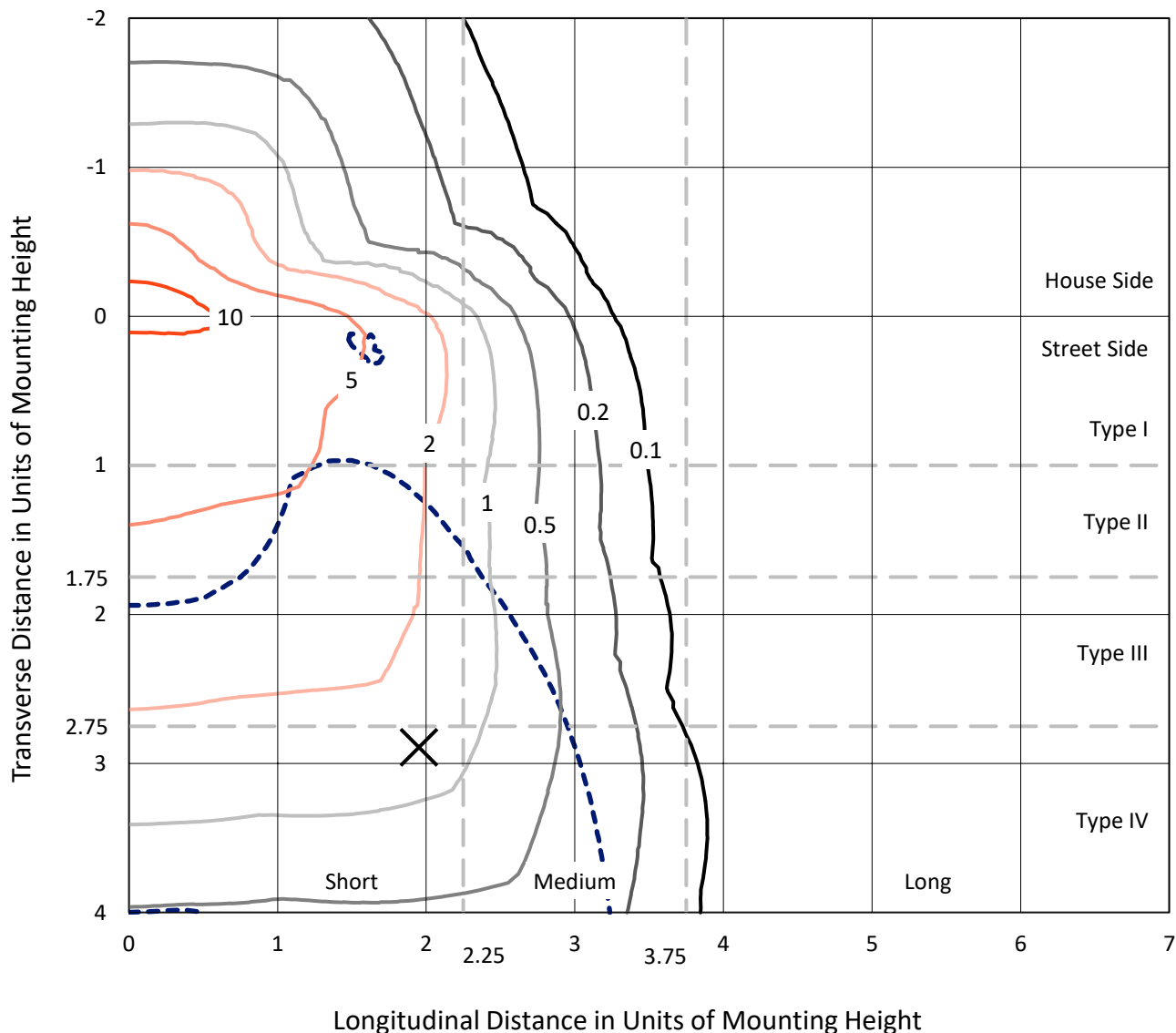
Input Watts (W): 552  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

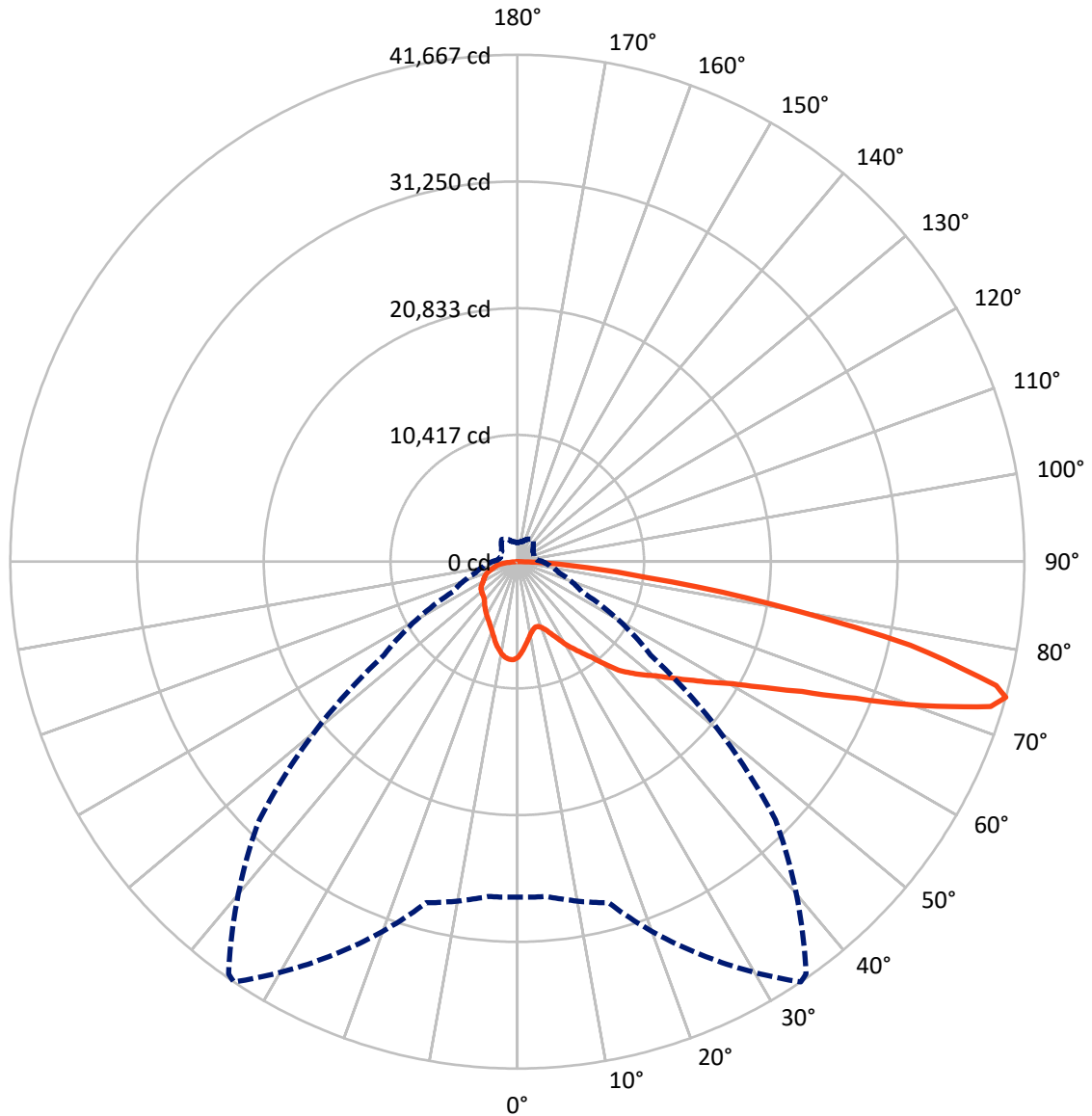
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral      - - - Horizontal Cone Through 74-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10947.0	0.0	10947.0
	% Fixture	21.3	0.0	21.3
<b>Street Side</b>	Lumens	40494.0	0.0	40494.0
	% Fixture	78.7	0.0	78.7
<b>Total</b>	Lumens	51441.0	0.0	51441.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	714.3	1.4
10°-20°	1955.3	3.8
20°-30°	3223.8	6.3
30°-40°	4828.9	9.4
40°-50°	7020.0	13.6
50°-60°	9805.2	19.1
60°-70°	12275.6	23.9
70°-80°	10151.0	19.7
80°-90°	1466.7	2.9
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°	51441.0	100.0
0°-180°	51441.0	100.0

**Coefficient of Utilization**



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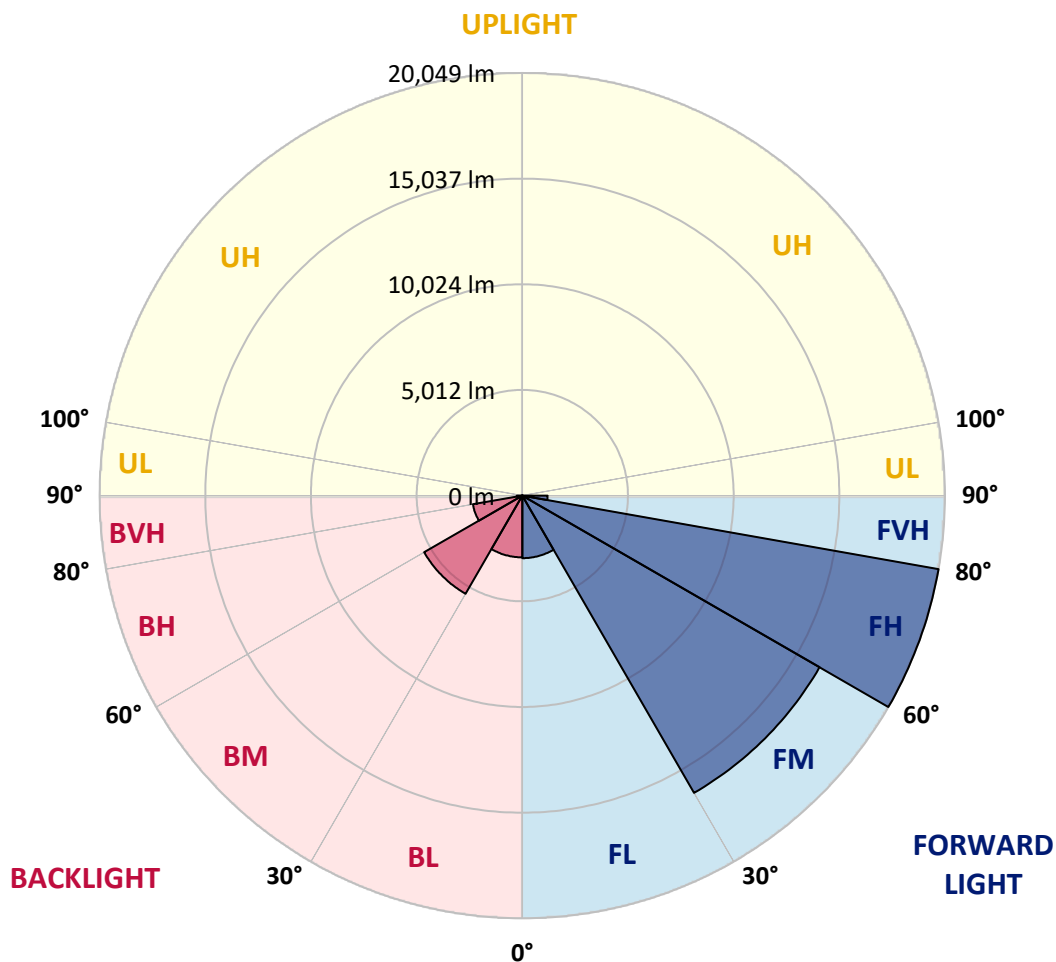
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2965.3	5.8			
FM	(30°-60°)	16278.1	31.6			
FH	(60°-80°)	20049.0	39.0			G5
FVH	(80°-90°)	1201.6	2.3			G5
BL	(0°-30°)	2928.1	5.7	B4/5000		
BM	(30°-60°)	5376.1	10.5	B4/8500		
BH	(60°-80°)	2377.6	4.6	B3/2500		G3/2500
BVH	(80°-90°)	265.1	0.5			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	7854.0	7854.0	7854.0	7854.0	7854.0	7854.0	7854.0	7854.0	7854.0	7854.0	7854.0
2.5°	7258.4	7295.5	7315.4	7386.7	7403.8	7426.6	7486.4	7566.2	7668.8	7760.0	7839.8
5°	6654.3	6711.3	6745.5	6808.2	6930.7	6942.1	7101.7	7284.1	7492.1	7685.9	7845.5
7.5°	6081.5	6144.1	6172.6	6286.6	6449.1	6474.7	6708.4	6996.2	7343.9	7637.4	7882.5
10°	5651.1	5682.5	5745.2	5830.7	6024.5	6041.6	6346.5	6731.2	7181.5	7614.6	7945.2
12.5°	5417.5	5434.6	5448.8	5540.0	5730.9	5756.6	6075.8	6511.8	7053.2	7631.7	8047.8
15°	5451.6	5457.3	5394.7	5411.8	5565.6	5602.7	5919.0	6366.4	6973.4	7674.5	8201.7
17.5°	5739.5	5719.5	5565.6	5485.8	5594.1	5611.2	5887.7	6309.4	6936.4	7754.3	8361.3
20°	6192.6	6164.1	5899.1	5722.4	5785.1	5799.3	5990.3	6352.2	6973.4	7885.4	8609.2
22.5°	6756.9	6745.5	6343.6	6129.9	6127.1	6127.1	6226.8	6506.1	7084.6	8064.9	8868.5
25°	7546.2	7486.4	6962.0	6685.6	6608.7	6603.0	6591.6	6759.7	7227.1	8255.8	9176.3
27.5°	8355.6	8253.0	7785.6	7361.0	7195.7	7175.8	7101.7	7118.8	7409.5	8472.4	9526.9
30°	9082.3	9016.7	8577.9	8107.7	7911.0	7865.4	7660.2	7566.2	7714.4	8862.8	10085.4
32.5°	9638.0	9598.1	9256.1	8828.7	8538.0	8529.4	8230.2	8153.3	8190.3	9335.9	10723.8
35°	10088.3	10102.5	9928.7	9558.2	9224.8	9176.3	8976.8	8879.9	8771.7	10019.9	11527.4
37.5°	10703.8	10735.2	10723.8	10404.6	9997.1	10008.5	9962.9	9803.3	9515.5	10783.6	12419.4
40°	11382.1	11404.9	11402.0	11279.5	11065.7	11077.1	11060.0	10877.7	10447.3	11755.4	13411.1
42.5°	12319.6	12211.4	11929.2	12051.8	12177.2	12231.3	12348.1	12174.3	11584.4	12792.7	14343.0
45°	13368.4	13163.2	12524.8	12581.8	13046.3	13148.9	13793.0	13553.6	12818.4	13983.9	15440.2
47.5°	14029.5	13827.2	13288.6	13277.2	13892.7	13992.5	15132.4	15044.0	13941.2	15269.2	16779.6
50°	14619.4	14590.9	13983.9	14129.3	14730.6	14878.8	16591.5	16508.8	15061.1	16785.3	18238.7
52.5°	15494.3	15263.5	14779.0	15078.2	15873.3	16067.1	18039.2	17796.9	16089.9	18124.7	19655.0
55°	15887.6	15833.4	15804.9	16064.3	17155.7	17295.4	19447.0	18891.3	16967.7	19258.9	20732.2
57.5°	16939.2	16839.4	17121.5	17298.2	18666.1	18879.9	20917.5	20034.0	17737.1	20159.4	21256.6
60°	18301.4	18247.2	18506.5	18825.7	20353.2	20678.1	22593.1	21008.7	18355.5	20612.5	20968.8
62.5°	20336.1	20330.4	20282.0	20965.9	22744.2	23043.4	24516.7	21957.6	18452.4	20273.4	19481.2
65°	23254.3	23151.7	22729.9	23476.6	25719.4	26069.9	26520.2	22487.7	17868.2	18532.2	16403.4
67.5°	26306.4	26300.7	25958.7	26927.7	29991.2	30353.1	29025.1	22370.9	16246.7	15012.7	11649.9
70°	28837.0	28714.5	29150.5	31732.4	35448.5	35867.5	31216.6	20994.4	12940.9	9914.4	6922.1
72.5°	29444.0	29449.7	30356.0	35437.1	40689.3	40754.9	32006.0	17016.1	8660.5	5468.7	3462.5
74°	27574.6	27623.0	29028.0	35622.4	41666.8	41370.4	29988.3	13374.1	5856.3	3570.8	2496.4
75°	25169.4	24864.4	26896.3	34388.4	40652.3	40333.1	27625.9	10732.3	4468.5	2852.6	2185.8
77.5°	13456.7	13767.3	16902.1	25662.4	33026.2	32658.6	18731.7	5146.7	2413.8	1986.3	1573.1
80°	4790.5	5283.5	7426.6	13428.2	21173.9	21287.9	8939.8	2359.6	1698.5	1464.8	1111.4
82.5°	1955.0	2009.1	3188.9	5958.9	10752.3	10854.9	3650.6	1402.1	1214.0	1008.8	664.0
85°	763.7	786.5	1410.6	2678.8	4588.2	4887.4	1262.5	740.9	746.6	578.5	339.1
87.5°	256.5	290.7	578.5	892.0	1558.8	1527.5	367.6	219.4	267.9	250.8	105.4
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°	7854.0	7854.0	7854.0	7854.0	7854.0	7854.0	7854.0	7854.0	7854.0	7854.0	7854.0
2.5°	7879.7	7933.8	7970.9	8010.8	8047.8	8059.2	8050.7	8076.3	8079.2	8082.0	8084.9
5°	7925.3	7999.4	8070.6	8110.5	8127.6	8113.4	8064.9	8039.3	8016.5	7999.4	8005.1
7.5°	7988.0	8093.4	8159.0	8176.0	8130.5	8064.9	7945.2	7851.2	7791.3	7751.4	7748.6
10°	8084.9	8187.4	8241.6	8193.1	8067.8	7908.2	7720.1	7543.4	7409.5	7369.6	7366.7
12.5°	8207.4	8324.2	8321.4	8178.9	7959.5	7674.5	7369.6	7164.4	6982.0	6890.8	6927.8
15°	8367.0	8455.3	8372.7	8116.2	7768.5	7378.1	7001.9	6722.7	6517.5	6420.6	6426.3
17.5°	8552.2	8629.2	8409.7	8005.1	7500.6	6999.1	6563.1	6298.0	6135.6	6064.4	6058.7
20°	8783.1	8805.9	8409.7	7811.3	7155.8	6557.4	6141.3	5956.1	5864.9	5827.8	5839.2
22.5°	9031.0	8985.4	8364.1	7537.7	6702.7	6095.7	5816.4	5733.8	5688.2	5682.5	5688.2
25°	9310.3	9182.0	8270.1	7167.2	6229.6	5696.7	5534.3	5548.5	5557.1	5557.1	5577.0
27.5°	9652.2	9395.8	8113.4	6699.9	5676.8	5326.3	5280.7	5380.4	5426.0	5434.6	5448.8
30°	10102.5	9629.4	7854.0	6115.7	5206.6	4992.8	5072.6	5206.6	5257.9	5289.2	5283.5
32.5°	10638.3	9885.9	7503.5	5531.4	4827.5	4759.2	4856.0	4992.8	5049.8	5066.9	5044.1
35°	11268.1	10176.6	7041.8	4984.3	4497.0	4536.9	4650.9	4693.6	4744.9	4744.9	4756.3
37.5°	11946.3	10410.3	6477.6	4482.7	4240.5	4385.8	4468.5	4428.6	4405.8	4377.3	4391.5
40°	12636.0	10584.1	5745.2	3986.9	3984.0	4229.1	4251.9	4137.9	4046.7	4018.2	4004.0
42.5°	13237.3	10692.4	5084.0	3602.1	3741.8	4075.2	4092.3	3909.9	3764.6	3679.1	3650.6
45°	13946.9	10817.8	4437.1	3283.0	3516.6	3952.7	3995.4	3750.3	3536.6	3357.1	3311.5
47.5°	14918.7	11102.8	3927.0	3035.0	3354.2	3875.7	3935.6	3619.2	3337.1	3103.4	3066.4
50°	16015.8	11493.2	3530.9	2866.9	3228.8	3807.3	3881.4	3485.3	3151.9	2892.5	2864.0
52.5°	17021.8	11704.1	3188.9	2715.9	3106.3	3681.9	3810.2	3388.4	2969.5	2681.7	2656.0
55°	17571.8	11362.1	2852.6	2567.7	2938.1	3519.5	3710.4	3254.5	2792.8	2570.5	2533.5
57.5°	17645.9	10655.4	2547.7	2408.1	2761.4	3320.0	3525.2	3092.0	2678.8	2493.6	2462.2
60°	17073.1	9600.9	2311.2	2277.0	2581.9	3094.9	3317.2	2949.5	2562.0	2408.1	2376.7
62.5°	15648.2	8455.3	2145.9	2157.3	2399.5	2858.3	3163.3	2812.7	2450.8	2314.0	2285.5
65°	13197.4	6979.1	1986.3	2034.8	2237.1	2673.1	3023.6	2698.8	2339.7	2242.8	2217.1
67.5°	9167.8	5038.4	1855.2	1906.5	2083.2	2485.0	2861.2	2576.2	2214.3	2163.0	2123.1
70°	5075.5	3100.6	1701.3	1761.2	1923.6	2274.1	2678.8	2391.0	2031.9	2009.1	1952.1
72.5°	2667.4	1974.9	1527.5	1593.0	1707.0	2003.4	2399.5	2188.6	1852.4	1755.5	1681.4
74°	2083.2	1618.7	1410.6	1479.0	1556.0	1843.8	2234.2	2043.3	1724.1	1610.1	1553.1
75°	1815.3	1442.0	1310.9	1399.2	1467.6	1735.5	2106.0	1940.7	1652.9	1544.6	1493.3
77.5°	1282.4	1080.1	1071.5	1177.0	1214.0	1521.8	1898.0	1766.9	1473.3	1359.4	1310.9
80°	900.5	809.3	849.2	914.8	966.1	1345.1	1761.2	1527.5	1208.3	1074.4	1057.3
82.5°	587.1	530.1	607.0	666.9	683.9	991.7	1422.0	1159.9	880.6	715.3	664.0
85°	270.7	265.0	347.7	339.1	336.3	484.5	843.5	678.3	507.3	379.0	356.2
87.5°	68.4	65.5	85.5	71.2	85.5	74.1	76.9	19.9	2.8	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)