

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: P298996

Luminaire Tested: **GLNA-AF-04-LED-E1-T2-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298996
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-T2-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15469.1 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B2 - U0 - G2

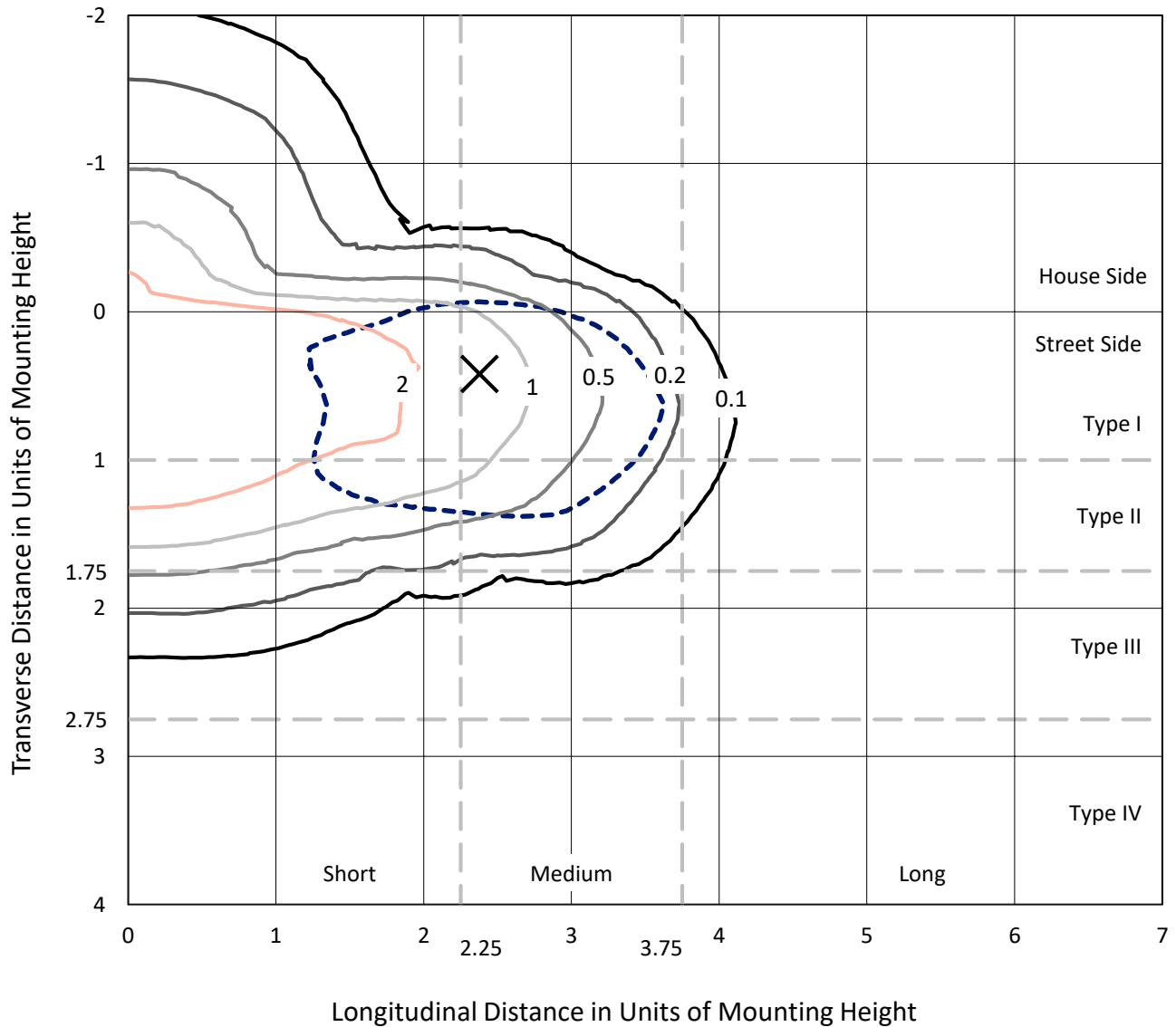
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P298996
 CATALOG NUMBER: GLNA-AF-04-LED-E1-T2-600

Iso-Footcandle Lines of Horizontal Illumination

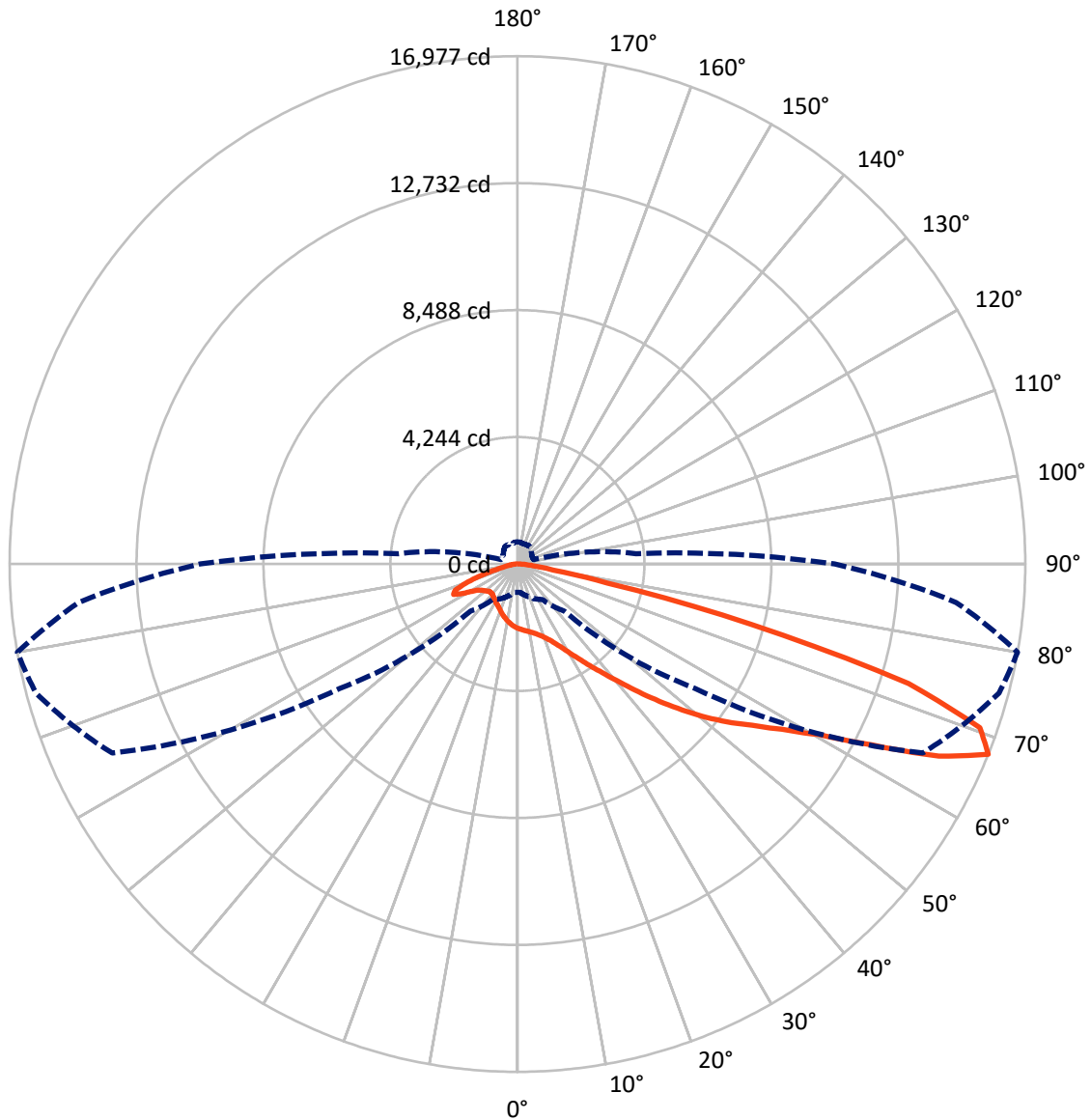
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P298996
CATALOG NUMBER: GLNA-AF-04-LED-E1-T2-600

Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P298996

CATALOG NUMBER: GLNA-AF-04-LED-E1-T2-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2848.8	0.0	2848.8
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	12620.3	0.0	12620.3
	% Fixture	81.6	0.0	81.6
Total	Lumens	15469.1	0.0	15469.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.2	1.3
10°-20°	571.1	3.7
20°-30°	945.3	6.1
30°-40°	1546.2	10.0
40°-50°	2496.5	16.1
50°-60°	3604.3	23.3
60°-70°	3977.5	25.7
70°-80°	1833.4	11.9
80°-90°	296.5	1.9
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°	15469.1	100.0
0°-180°	15469.1	100.0



REPORT NUMBER: P298996

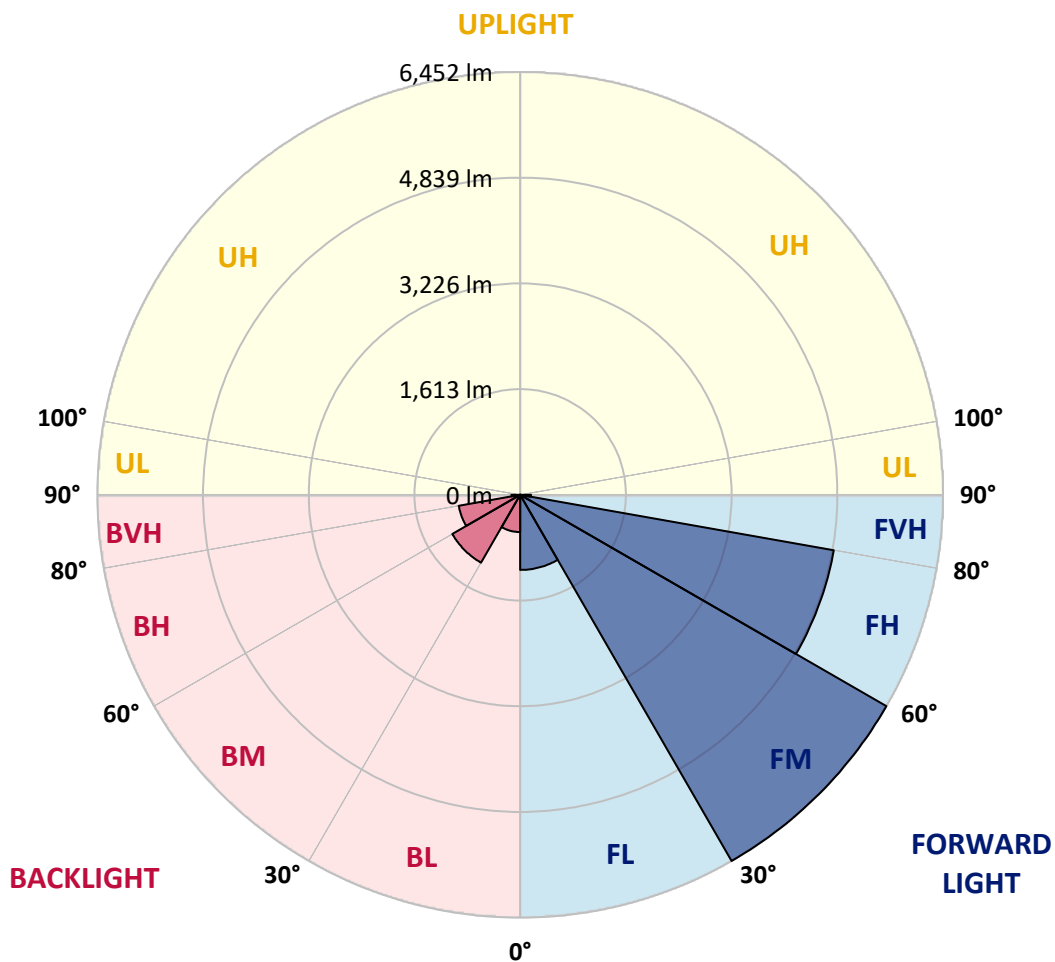
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1146.2	7.4			
FM (30°-60°)	6451.8	41.7			
FH (60°-80°)	4859.2	31.4			G2/5000
FVH (80°-90°)	163.0	1.1			G2/225
BL (0°-30°)	568.4	3.7	B2/1000		
BM (30°-60°)	1195.3	7.7	B2/2500		
BH (60°-80°)	951.7	6.2	B2/1000		G2/1000
BVH (80°-90°)	133.5	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





REPORT NUMBER: P298996

CATALOG NUMBER: GLNA-AF-04-LED-E1-T2-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	2149.1	2149.1	2149.1	2149.1	2149.1	2149.1	2149.1	2149.1	2149.1	2149.1	2149.1
2.5°	2350.9	2337.2	2339.5	2335.7	2324.3	2304.5	2283.1	2244.3	2203.9	2182.6	2165.9
5°	2547.4	2543.6	2538.3	2526.1	2497.1	2456.0	2405.0	2336.4	2262.6	2223.7	2186.4
7.5°	2694.4	2692.1	2685.2	2677.6	2649.4	2599.9	2523.0	2425.6	2318.2	2264.9	2207.0
10°	2706.6	2710.4	2715.7	2736.3	2740.1	2713.4	2635.0	2516.9	2376.0	2307.5	2233.6
12.5°	2603.0	2611.4	2631.9	2684.5	2740.1	2772.8	2732.5	2612.9	2443.8	2360.8	2267.1
15°	2465.9	2470.5	2495.6	2568.0	2667.7	2769.0	2807.1	2718.7	2531.4	2429.4	2317.4
17.5°	2407.3	2409.6	2427.1	2475.1	2568.0	2712.7	2849.0	2833.7	2638.8	2514.7	2379.1
20°	2377.6	2382.9	2408.0	2455.3	2513.9	2640.3	2855.1	2957.9	2766.7	2621.3	2456.8
22.5°	2462.1	2459.8	2469.0	2492.6	2542.1	2618.2	2850.5	3085.8	2929.7	2758.3	2558.1
25°	2659.3	2667.7	2651.7	2625.1	2641.1	2694.4	2874.9	3224.4	3133.8	2934.3	2690.6
27.5°	2940.4	2932.0	2908.4	2845.9	2813.2	2836.0	2955.6	3373.7	3387.4	3165.8	2865.7
30°	3220.6	3213.8	3190.9	3114.8	3047.7	3028.7	3112.5	3545.0	3689.7	3443.7	3080.5
32.5°	3511.5	3503.9	3482.6	3406.4	3325.7	3281.5	3335.6	3743.0	4046.1	3775.8	3333.3
35°	3870.2	3855.7	3810.8	3705.0	3625.8	3591.5	3616.6	3992.1	4457.4	4168.7	3640.2
37.5°	4207.6	4229.7	4184.0	4037.8	3935.0	3922.8	3950.9	4295.9	4900.6	4608.2	3992.8
40°	4546.5	4550.3	4509.2	4389.6	4283.7	4263.9	4334.8	4664.5	5423.8	5133.6	4421.6
42.5°	4896.8	4904.4	4835.1	4724.7	4647.0	4650.8	4731.5	5096.3	6023.9	5752.8	4915.1
45°	5311.8	5323.3	5247.1	5102.4	5031.6	5174.0	5140.5	5580.7	6681.9	6456.5	5481.7
47.5°	5745.9	5763.4	5705.6	5570.0	5481.7	5677.4	5549.4	6117.6	7390.1	7211.2	6103.9
50°	5982.8	6007.9	6064.3	6054.4	6035.3	6002.6	6005.6	6693.3	8120.5	7997.1	6743.6
52.5°	5855.6	5854.8	6060.4	6310.2	6576.8	6596.6	6561.6	7300.3	8802.8	8765.5	7346.0
55°	5273.8	5313.4	5624.8	6108.4	6836.5	7291.1	7394.7	7995.6	9473.0	9516.4	7957.5
57.5°	4305.1	4337.8	4758.2	5432.2	6486.2	7703.9	8579.7	9006.1	10222.3	10424.9	8771.6
60°	2919.8	2959.4	3404.9	4214.4	5543.4	7473.9	9707.5	10809.5	11119.5	11580.2	9913.9
62.5°	1715.8	1751.6	2114.8	2658.6	3903.0	6405.4	10202.5	13375.2	12544.3	13323.4	11656.4
65°	1181.2	1205.5	1382.2	1654.9	2242.8	4314.2	9588.7	15146.6	14736.8	15483.2	13676.8
67.5°	950.4	947.4	1087.5	1273.3	1443.9	2224.5	7250.8	14946.3	16665.1	16976.6	14725.4
70°	782.9	779.8	875.0	1028.9	1153.8	1252.8	3949.4	12612.9	16272.1	16398.5	13759.8
72.5°	654.9	658.0	718.9	833.1	946.6	943.6	1735.6	8872.9	12801.0	13675.2	10968.7
75°	552.9	554.4	594.8	675.5	768.4	760.0	941.3	4806.9	7441.1	8049.6	6080.2
77.5°	470.6	472.2	498.1	543.0	609.2	606.2	686.9	2076.8	3104.1	3066.0	2079.8
80°	419.6	419.6	431.8	440.2	476.7	463.0	509.5	997.6	1312.2	1211.6	830.1
82.5°	329.0	330.5	405.1	402.1	375.4	357.9	357.9	587.9	695.3	642.8	485.9
85°	185.1	184.3	261.2	315.3	330.5	252.1	249.8	329.0	378.5	333.6	235.3
87.5°	79.2	80.7	121.1	140.1	187.3	156.9	154.6	169.8	192.7	166.8	108.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P298996

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2149.1	2149.1	2149.1	2149.1	2149.1	2149.1	2149.1	2149.1	2149.1	2149.1	2149.1
2.5°	2149.9	2130.1	2086.7	2032.6	1983.8	1951.9	1922.9	1881.0	1883.3	1854.4	1833.1
5°	2148.3	2107.2	2006.7	1887.1	1772.1	1689.1	1626.7	1570.3	1556.6	1530.0	1514.0
7.5°	2149.9	2082.9	1913.8	1722.6	1580.2	1475.1	1421.8	1392.1	1385.3	1376.1	1376.9
10°	2155.2	2060.8	1811.7	1568.8	1419.5	1350.2	1337.3	1346.4	1357.1	1360.1	1360.9
12.5°	2167.4	2041.0	1699.8	1431.7	1319.0	1297.7	1319.8	1351.0	1371.6	1381.5	1380.7
15°	2194.8	2025.7	1592.4	1324.3	1263.4	1274.8	1316.0	1360.1	1389.8	1403.5	1404.3
17.5°	2224.5	2003.6	1482.0	1242.1	1222.3	1251.2	1302.3	1354.0	1390.6	1405.8	1408.9
20°	2263.3	1976.2	1366.2	1180.4	1183.5	1216.2	1264.2	1316.0	1356.3	1369.3	1375.4
22.5°	2314.4	1946.5	1264.9	1130.1	1139.3	1164.4	1201.7	1246.7	1281.7	1287.8	1293.1
25°	2382.9	1914.5	1184.2	1084.5	1088.3	1102.7	1127.9	1154.5	1178.9	1172.0	1177.4
27.5°	2475.1	1887.1	1124.1	1042.6	1035.7	1038.8	1051.7	1060.1	1073.0	1054.0	1056.3
30°	2583.2	1857.4	1077.6	1006.0	987.0	981.6	984.7	989.3	999.2	973.3	969.5
32.5°	2708.8	1821.6	1034.2	974.0	947.4	936.7	938.2	950.4	988.5	972.5	964.1
35°	2855.1	1781.3	988.5	939.0	920.7	905.5	904.0	942.0	1055.5	1045.6	1038.0
37.5°	3026.4	1740.9	942.8	899.4	900.9	884.2	878.8	922.2	1068.5	1029.6	1024.3
40°	3244.2	1719.6	904.0	857.5	876.5	874.3	863.6	885.7	983.2	912.3	903.2
42.5°	3513.8	1722.6	875.0	812.6	847.6	872.0	855.2	856.0	891.0	837.7	829.3
45°	3846.6	1758.4	854.5	776.8	814.9	869.7	852.2	840.0	843.0	814.9	810.3
47.5°	4235.0	1832.3	840.0	747.1	783.6	861.3	851.4	835.4	828.6	813.3	809.5
50°	4666.8	1939.7	829.3	718.9	755.5	847.6	852.2	830.9	823.2	817.1	814.9
52.5°	5091.0	2062.3	813.3	694.5	733.4	830.9	854.5	826.3	817.9	813.3	811.1
55°	5563.9	2215.4	789.0	674.0	715.1	809.5	854.5	819.4	810.3	811.1	810.3
57.5°	6202.9	2462.9	760.0	656.5	693.0	783.6	840.0	811.8	800.4	801.2	801.9
60°	7201.3	2899.2	725.0	638.9	665.6	753.2	820.2	795.1	783.6	786.7	787.4
62.5°	8669.5	3539.7	679.3	613.1	636.7	720.4	792.8	773.7	762.3	769.9	769.9
65°	10195.7	4104.8	623.0	580.3	606.2	684.6	758.5	747.1	735.7	753.2	752.4
67.5°	10606.2	3978.4	566.6	544.5	575.7	645.0	717.4	711.3	705.2	735.7	734.1
70°	9421.9	3194.0	514.8	508.0	542.2	602.4	673.2	673.2	669.4	692.3	686.9
72.5°	7178.4	2264.9	465.3	469.1	504.1	555.9	625.2	630.6	624.5	635.9	631.3
75°	3842.8	1296.2	415.8	426.5	456.9	508.7	571.9	577.3	573.5	572.7	575.0
77.5°	1277.1	633.6	364.0	380.8	407.4	460.0	516.3	524.7	515.6	514.0	513.3
80°	568.9	398.3	306.9	329.0	352.6	404.4	457.7	464.5	454.6	468.4	450.8
82.5°	365.5	262.0	246.0	270.4	293.2	348.8	399.1	400.6	391.4	454.6	387.6
85°	177.4	162.2	185.1	207.1	226.9	274.2	330.5	331.3	308.4	281.0	271.1
87.5°	88.3	94.4	123.4	143.2	153.1	188.1	240.7	236.1	226.2	205.6	189.6
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)