

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: LUMARK

Report Number: P882747

Luminaire Tested: **NAV-SB2D-735-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882747  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2D-735-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

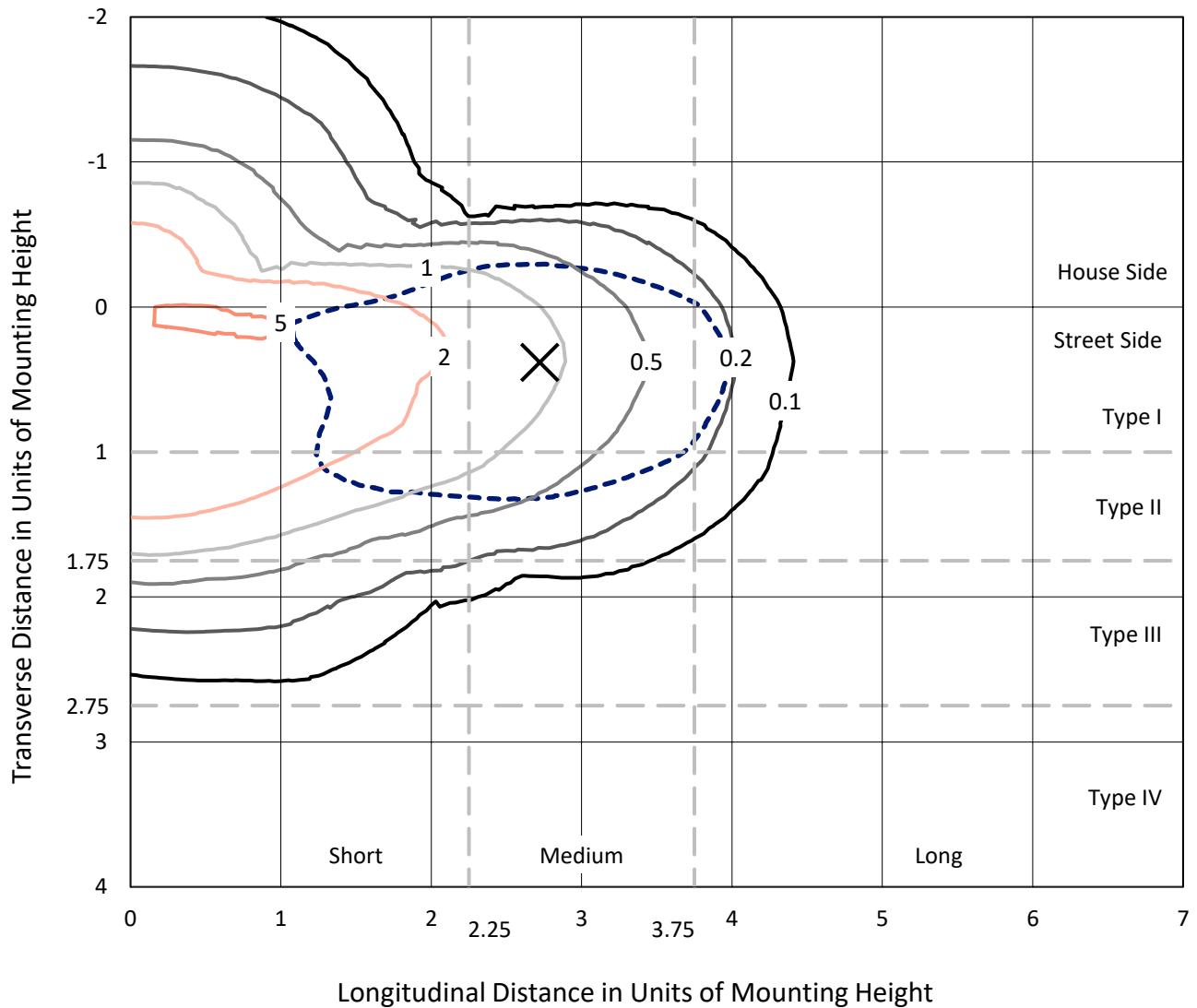
Lumens per Lamp: N/A  
Luminaire Lumens: 20550 lumens  
Efficiency: N/A  
Efficacy: 139.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 147.6  
Input Voltage (V): 120.0  
Input Current (Ain): 1.234  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
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

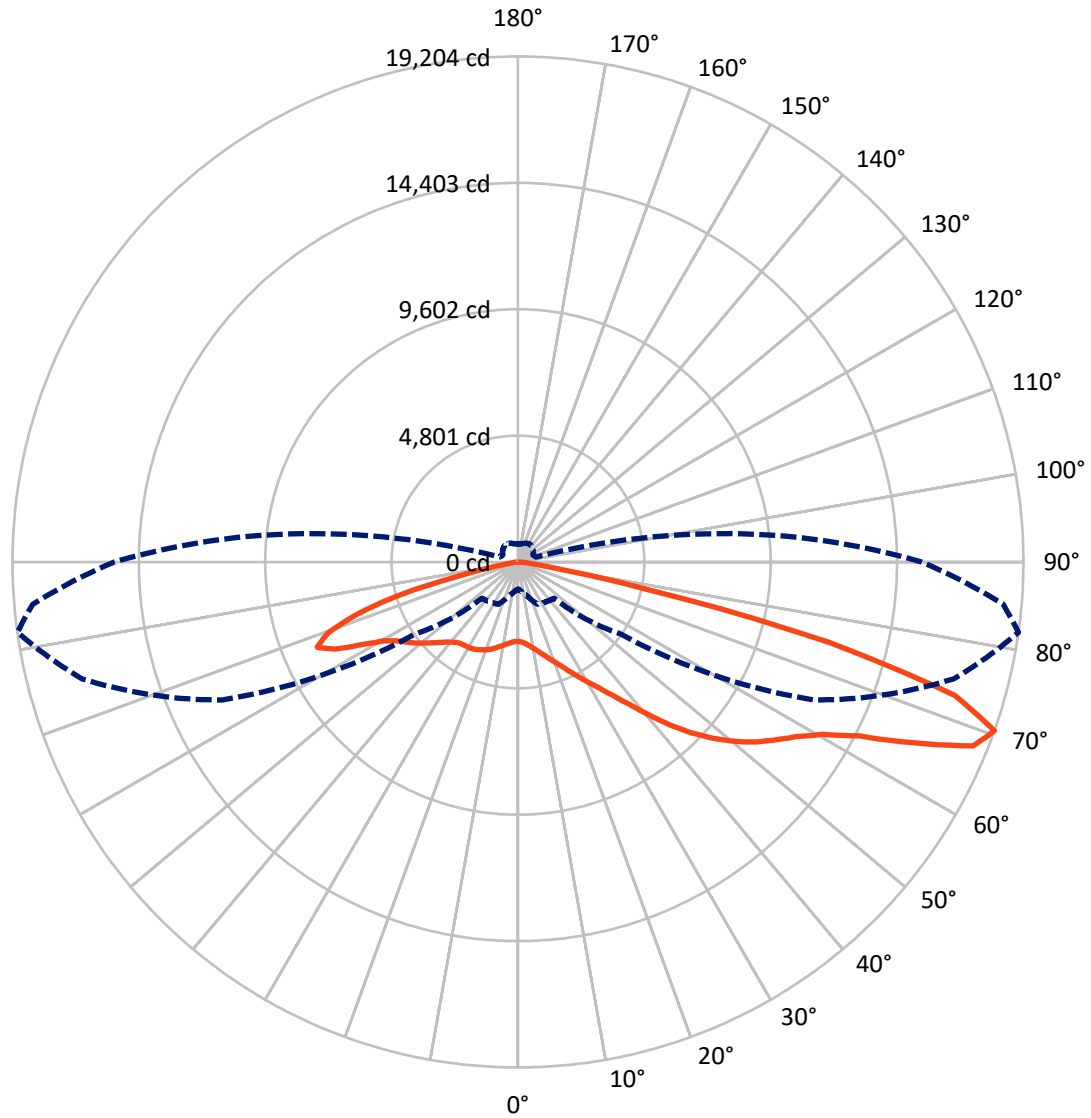
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5066.1	0.0	5066.1
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	15483.9	0.0	15483.9
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	20550.0	0.0	20550.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	284.5	1.4
10°-20°	817.3	4.0
20°-30°	1367.3	6.7
30°-40°	2136.0	10.4
40°-50°	3401.8	16.6
50°-60°	4734.1	23.0
60°-70°	4952.1	24.1
70°-80°	2588.2	12.6
80°-90°	268.8	1.3
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°	20550.0	100.0
0°-180°	20550.0	100.0

**Coefficient of Utilization**



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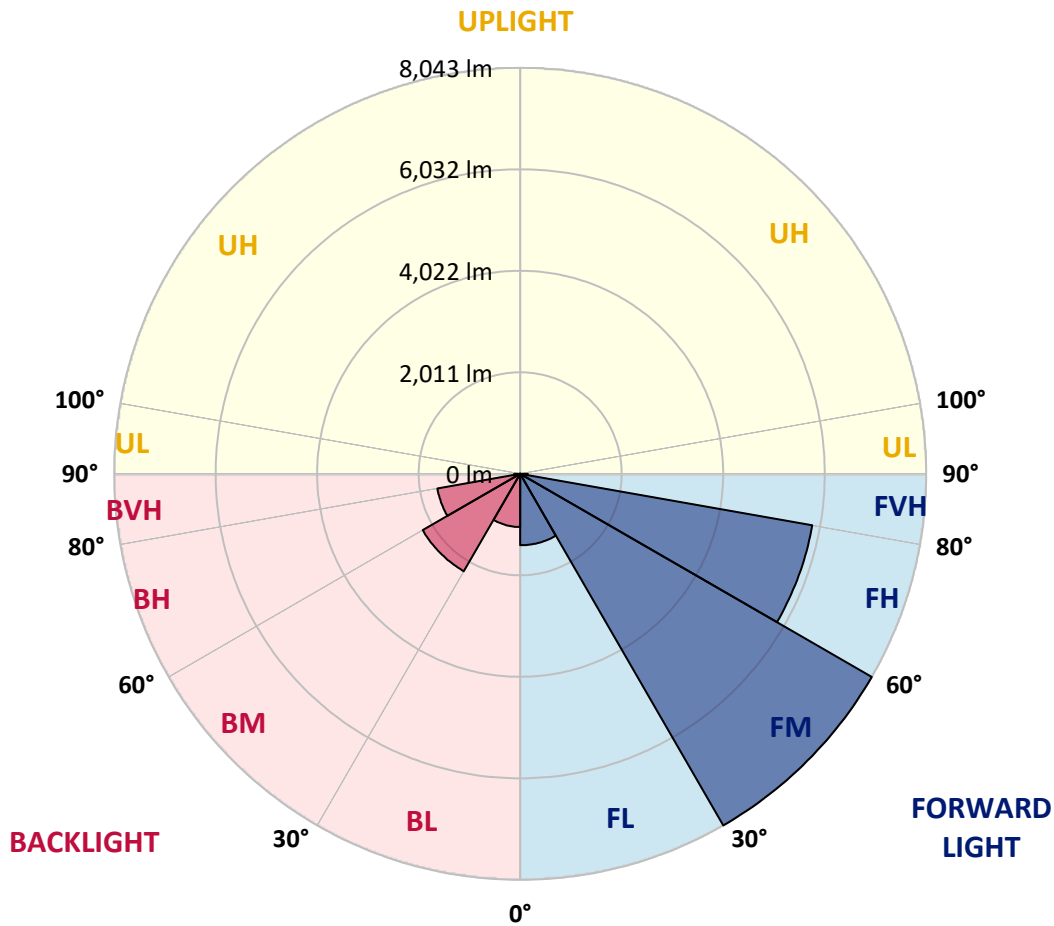
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1415.1	6.9			
FM (30°-60°)	8043.1	39.1			
FH (60°-80°)	5875.3	28.6			G3/7500
FVH (80°-90°)	150.5	0.7			G2/225
BL (0°-30°)	1053.9	5.1	B3/2500		
BM (30°-60°)	2228.9	10.8	B2/2500		
BH (60°-80°)	1665.0	8.1	B3/2500		G3/2500
BVH (80°-90°)	118.3	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3012.9	3012.9	3012.9	3012.9	3012.9	3012.9	3012.9	3012.9	3012.9	3012.9	3012.9
2.5°	3084.9	3102.3	3096.9	3091.4	3091.4	3083.8	3082.7	3071.8	3063.0	3048.9	3045.6
5°	3124.1	3142.6	3140.5	3144.8	3159.0	3162.3	3165.5	3159.0	3141.6	3124.1	3116.5
7.5°	3089.2	3109.9	3116.5	3142.6	3186.3	3225.5	3255.0	3267.0	3250.6	3225.5	3213.5
10°	2971.5	2994.3	3017.2	3079.4	3156.8	3249.5	3328.0	3374.9	3371.6	3347.7	3326.9
12.5°	2732.6	2756.6	2805.7	2926.7	3068.5	3232.1	3378.2	3476.3	3510.1	3492.7	3456.7
15°	2541.8	2562.5	2599.6	2723.9	2908.2	3156.8	3396.7	3587.5	3673.7	3663.9	3620.3
17.5°	2536.4	2545.1	2568.0	2626.9	2768.6	3039.1	3377.1	3696.6	3861.2	3860.2	3805.6
20°	2632.3	2635.6	2648.7	2660.7	2741.4	2949.6	3326.9	3787.1	4071.7	4071.7	4012.8
22.5°	2765.4	2763.2	2776.3	2765.4	2804.6	2942.0	3295.3	3866.7	4306.1	4323.6	4249.4
25°	2964.9	2954.0	2950.7	2925.7	2933.3	3012.9	3330.2	3957.2	4584.2	4620.2	4527.5
27.5°	3231.0	3213.5	3201.5	3143.7	3124.1	3159.0	3437.1	4066.3	4893.9	4956.1	4838.3
30°	3577.7	3546.1	3528.7	3428.3	3357.5	3362.9	3598.5	4211.3	5217.8	5318.1	5168.7
32.5°	4051.0	4001.9	3955.0	3790.4	3660.6	3618.1	3806.7	4411.9	5568.9	5729.2	5537.3
35°	4580.9	4541.7	4491.5	4237.5	4037.9	3939.8	4088.1	4692.2	5980.0	6234.0	5984.3
37.5°	5091.3	5057.5	5081.5	4739.1	4481.7	4338.9	4456.6	5068.4	6487.0	6862.1	6544.8
40°	5619.0	5592.9	5596.1	5269.0	4969.1	4808.8	4903.7	5540.5	7068.2	7609.1	7218.7
42.5°	6192.6	6173.0	6107.6	5817.5	5480.6	5331.2	5418.4	6085.7	7692.0	8459.6	7958.0
45°	6834.9	6822.9	6761.8	6429.2	6043.2	5875.3	5993.1	6687.7	8319.0	9260.0	8700.6
47.5°	7389.9	7399.7	7392.1	7111.9	6711.7	6465.2	6605.9	7315.8	8902.4	10012.4	9412.7
50°	7657.1	7708.3	7783.6	7696.3	7447.7	7196.9	7224.2	7922.0	9458.5	10717.9	10095.3
52.5°	7517.5	7614.5	7819.5	7959.1	8055.1	8002.7	7929.7	8524.0	9981.9	11354.8	10740.8
55°	6997.4	7133.7	7473.9	7810.8	8300.4	8681.0	8777.0	9191.3	10492.2	11915.2	11351.5
57.5°	6049.8	6271.1	6576.4	7258.0	8082.3	9009.2	9764.9	10117.1	11033.1	12513.9	11990.5
60°	4425.0	4721.6	5101.1	6115.2	7319.0	8833.7	10605.6	11539.0	11801.8	13289.2	12822.5
62.5°	2831.9	3015.1	3364.0	4319.2	5703.0	7934.0	10863.0	13316.5	13104.9	14560.7	14070.0
65°	1938.8	2056.6	2376.1	2912.6	3686.8	5905.8	10173.8	14649.0	15174.6	16575.8	16202.9
67.5°	1408.8	1498.3	1770.9	2240.9	2402.2	3494.9	7894.8	14587.9	17186.4	18652.0	18071.9
70°	1027.2	1090.4	1319.4	1770.9	1848.3	1944.3	4782.7	12400.5	17142.8	19203.7	18509.1
72.5°	761.1	804.7	958.5	1374.0	1496.1	1312.9	2367.3	9012.5	14730.8	17369.6	16812.4
75°	550.7	583.4	696.8	1051.2	1197.3	999.9	1180.9	5266.8	10275.2	12218.4	12316.5
77.5°	420.9	446.0	520.1	769.9	958.5	750.2	732.8	2423.0	4872.1	4896.1	5170.9
80°	338.0	354.4	394.7	541.9	735.0	561.6	477.6	978.1	1539.7	1303.1	1367.4
82.5°	248.6	275.9	333.7	380.6	525.6	387.1	291.1	494.0	585.6	503.8	508.1
85°	141.8	160.3	201.7	272.6	335.9	236.6	166.8	219.2	272.6	223.5	199.6
87.5°	50.2	65.4	70.9	106.9	146.1	98.1	64.3	63.2	89.4	66.5	55.6
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°	3012.9	3012.9	3012.9	3012.9	3012.9	3012.9	3012.9	3012.9	3012.9	3012.9	3012.9
2.5°	3034.7	3029.2	3007.4	2978.0	2947.5	2918.0	2908.2	2887.5	2873.3	2865.7	2874.4
5°	3095.8	3078.3	3027.1	2961.6	2892.9	2818.8	2766.4	2718.5	2683.6	2650.9	2663.9
7.5°	3183.0	3152.5	3064.1	2949.6	2827.5	2704.3	2612.7	2542.9	2496.0	2465.5	2472.0
10°	3284.4	3237.5	3102.3	2931.1	2742.5	2565.8	2457.9	2397.9	2368.4	2352.1	2356.4
12.5°	3401.1	3334.6	3141.6	2888.6	2612.7	2411.0	2336.8	2319.4	2320.5	2321.5	2323.7
15°	3545.0	3452.3	3173.2	2795.9	2443.7	2292.1	2279.0	2307.4	2336.8	2351.0	2349.9
17.5°	3707.5	3576.6	3178.6	2643.2	2277.9	2215.8	2257.2	2318.3	2363.0	2382.6	2387.0
20°	3882.0	3703.1	3139.4	2427.3	2141.6	2153.6	2227.8	2306.3	2355.4	2380.4	2387.0
22.5°	4081.5	3838.4	3045.6	2200.5	2030.4	2086.0	2173.2	2249.6	2300.8	2325.9	2332.5
25°	4309.4	3989.9	2898.4	2009.7	1934.4	2009.7	2096.9	2160.2	2201.6	2224.5	2231.0
27.5°	4562.4	4148.0	2702.1	1858.1	1850.5	1931.2	2003.1	2052.2	2074.0	2091.5	2098.0
30°	4816.5	4292.0	2464.4	1743.6	1777.4	1853.7	1905.0	1926.8	1933.4	1936.6	1944.3
32.5°	5091.3	4416.3	2214.7	1648.7	1707.6	1778.5	1809.0	1818.9	1788.3	1767.6	1774.1
35°	5423.9	4549.3	1970.4	1573.5	1638.9	1700.0	1709.8	1701.1	1665.1	1622.6	1624.8
37.5°	5834.9	4715.1	1775.2	1520.1	1574.6	1614.9	1602.9	1600.8	1604.0	1553.9	1557.1
40°	6338.7	4931.0	1632.4	1478.6	1522.3	1531.0	1497.2	1515.7	1532.1	1455.7	1457.9
42.5°	6898.1	5191.6	1541.9	1450.3	1478.6	1457.9	1405.6	1426.3	1424.1	1323.8	1322.7
45°	7468.4	5475.1	1510.3	1429.6	1438.3	1396.9	1339.1	1344.5	1298.7	1208.2	1211.5
47.5°	8035.5	5779.3	1529.9	1412.1	1388.1	1341.2	1296.5	1272.5	1204.9	1137.3	1137.3
50°	8591.6	6098.8	1601.9	1377.2	1319.4	1292.2	1259.5	1216.9	1145.0	1087.2	1082.8
52.5°	9107.4	6420.5	1682.5	1319.4	1233.3	1249.6	1228.9	1179.9	1109.0	1050.1	1051.2
55°	9595.9	6742.2	1714.2	1239.8	1152.6	1212.6	1200.6	1110.1	1025.0	977.0	972.7
57.5°	10128.0	7129.3	1679.3	1138.4	1087.2	1170.0	1124.2	1023.9	974.9	938.9	935.6
60°	10865.1	7736.7	1604.0	1013.0	1025.0	1106.8	1028.3	986.8	933.4	893.1	890.9
62.5°	12089.7	8869.6	1483.0	888.7	952.0	1013.0	982.5	941.1	886.5	847.3	847.3
65°	13899.8	10444.2	1255.1	791.7	870.2	921.4	933.4	892.0	835.3	793.8	796.0
67.5°	15426.5	11432.2	949.8	711.0	786.2	847.3	881.1	840.7	780.8	740.4	741.5
70°	15342.5	10714.7	725.1	631.4	712.1	774.2	817.8	786.2	721.9	683.7	687.0
72.5°	13627.2	8963.4	586.7	550.7	636.8	697.9	750.2	726.2	660.8	623.7	623.7
75°	10011.3	6362.7	468.9	468.9	543.0	618.3	676.1	660.8	600.8	574.7	567.0
77.5°	4220.0	2669.4	367.5	389.3	451.4	531.0	603.0	608.5	556.1	588.8	534.3
80°	1122.1	736.0	280.2	306.4	354.4	438.4	524.5	522.3	465.6	435.1	404.6
82.5°	427.5	290.1	199.6	215.9	256.3	335.9	415.5	428.5	371.8	321.7	321.7
85°	164.7	124.3	123.2	129.8	149.4	222.4	314.0	325.0	280.2	237.7	245.3
87.5°	42.5	37.1	45.8	43.6	68.7	118.9	179.9	186.5	171.2	99.2	141.8
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)