

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: STREETWORKS

Report Number: P510168

Luminaire Tested: **VERD-M-CA4-220-727-U-T4-HSS**

Issue Date: 4/6/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P510168  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/6/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-M-CA4-220-727-U-T4-HSS  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 2700K, 1000mA LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23760 lumens  
Efficiency: N/A  
Efficacy: 106.8 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G5

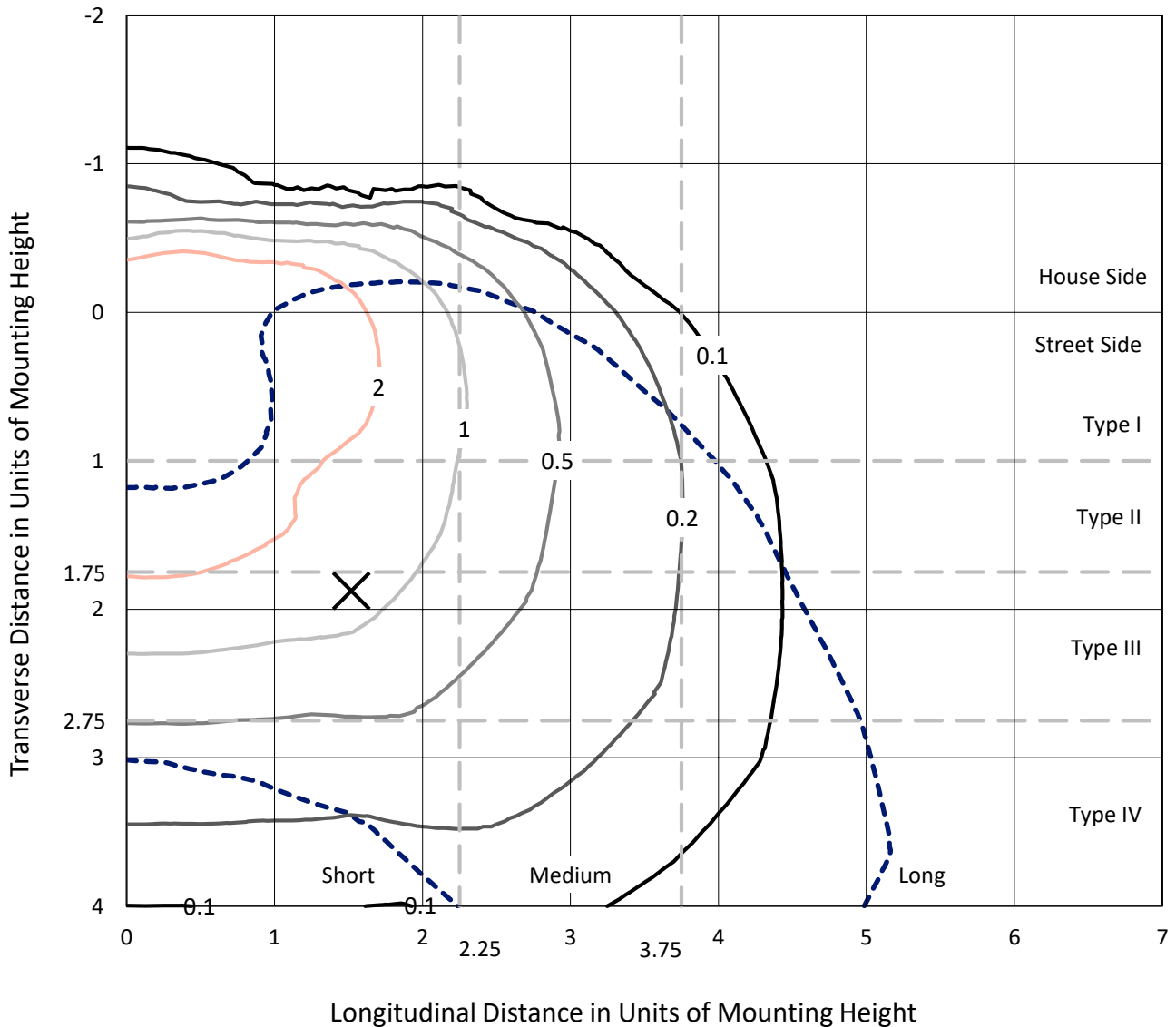
Input Watts (W): 222.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

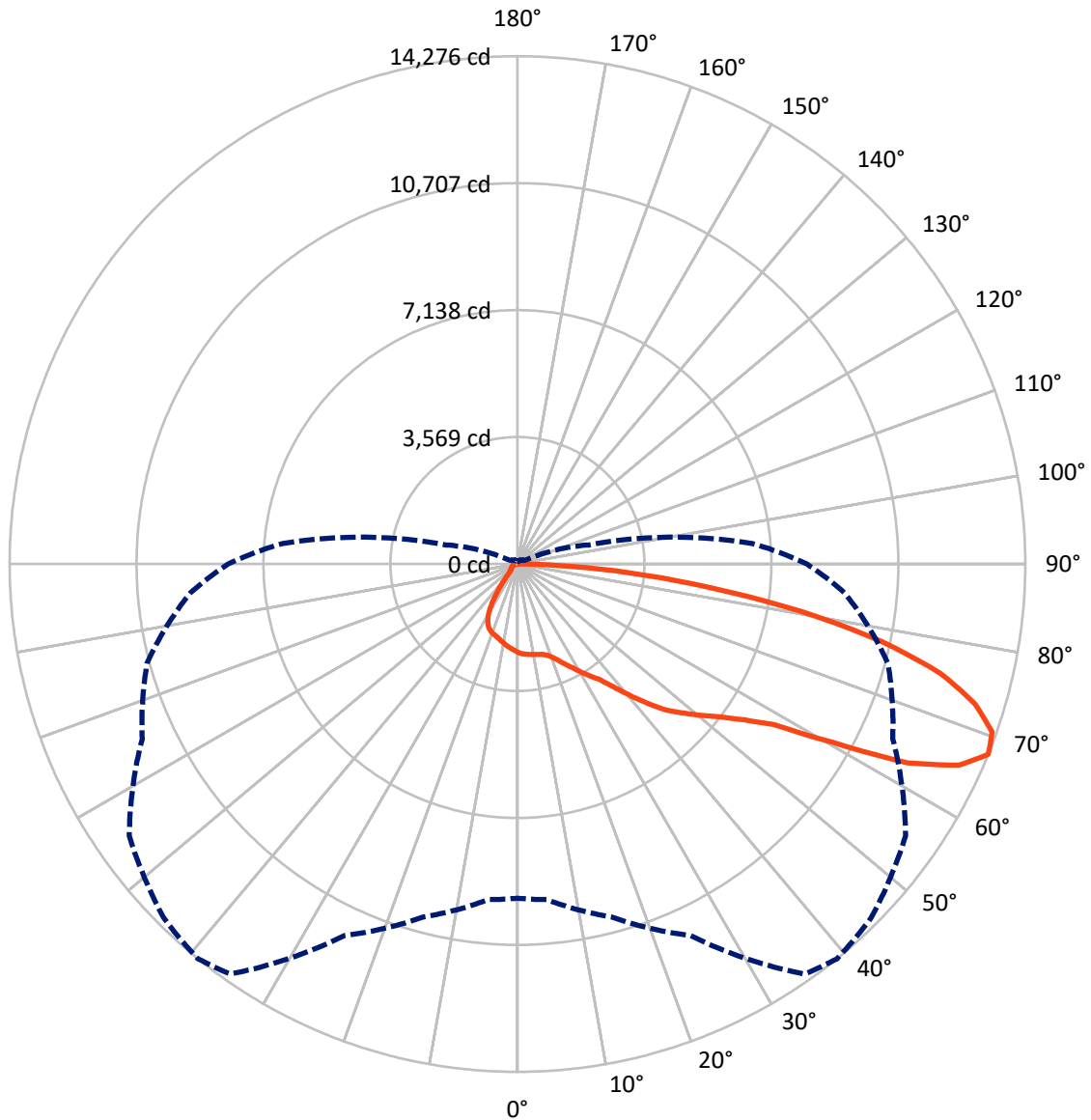
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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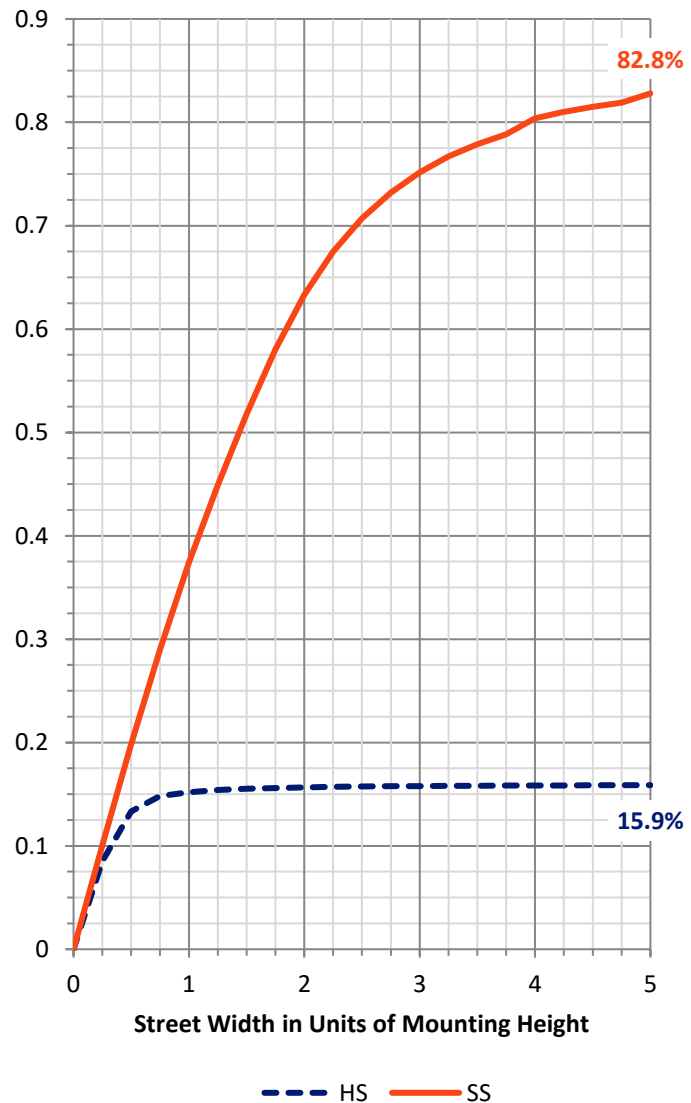
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3815.3	0.0	3815.3
	% Fixture	16.1	0.0	16.1
<b>Street Side</b>	Lumens	19944.7	0.0	19944.7
	% Fixture	83.9	0.0	83.9
<b>Total</b>	Lumens	23760.0	0.0	23760.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	234.9	1.0
10°-20°	699.1	2.9
20°-30°	1238.5	5.2
30°-40°	1983.7	8.3
40°-50°	3182.2	13.4
50°-60°	4651.5	19.6
60°-70°	6198.4	26.1
70°-80°	4651.4	19.6
80°-90°	920.3	3.9
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°	23760.0	100.0
0°-180°	23760.0	100.0



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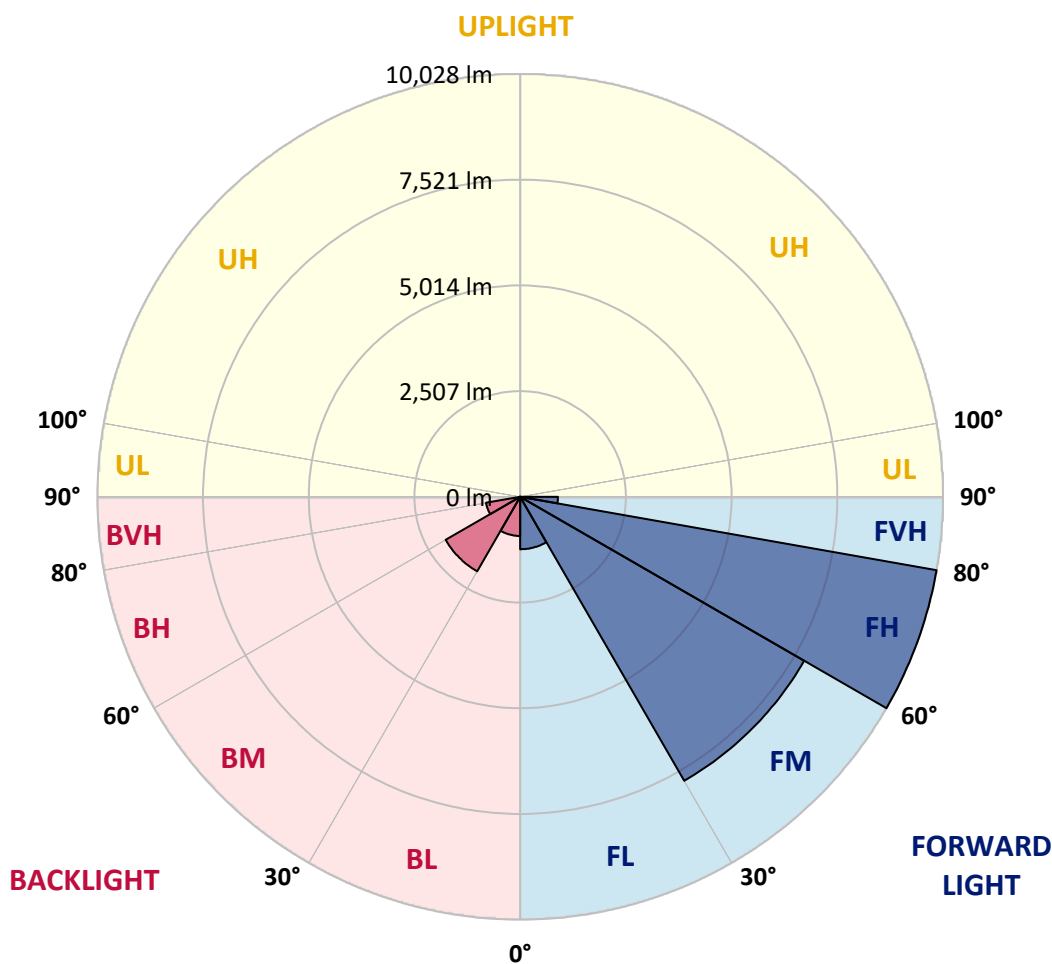
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1243.4	5.2			
FM (30°-60°)	7776.9	32.7			
FH (60°-80°)	10028.3	42.2			G4/12000
FVH (80°-90°)	896.2	3.8			G5
BL (0°-30°)	929.1	3.9	B2/1000		
BM (30°-60°)	2040.6	8.6	B2/2500		
BH (60°-80°)	821.5	3.5	B2/1000		G2/1000
BVH (80°-90°)	24.1	0.1			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	2487.9	2487.9	2487.9	2487.9	2487.9	2487.9	2487.9	2487.9	2487.9	2487.9	2487.9
2.5°	2490.3	2523.7	2523.7	2514.2	2520.2	2524.9	2489.1	2498.7	2495.1	2493.9	2501.1
5°	2509.4	2546.4	2544.0	2532.1	2536.9	2546.4	2513.0	2527.3	2522.5	2510.6	2513.0
7.5°	2509.4	2540.5	2547.6	2534.5	2557.2	2569.1	2533.3	2546.4	2552.4	2544.0	2535.7
10°	2499.9	2527.3	2536.9	2534.5	2564.3	2583.4	2548.8	2585.8	2590.6	2590.6	2577.5
12.5°	2496.3	2527.3	2540.5	2551.2	2585.8	2606.1	2585.8	2621.6	2645.5	2644.3	2636.0
15°	2498.7	2533.3	2553.6	2571.5	2608.5	2633.6	2625.2	2680.1	2708.8	2717.1	2717.1
17.5°	2558.4	2600.1	2609.7	2628.8	2653.9	2692.1	2681.3	2751.8	2797.1	2811.5	2831.7
20°	2725.5	2757.7	2769.7	2760.1	2770.9	2794.7	2773.2	2841.3	2909.3	2947.5	2981.0
22.5°	2939.2	2963.1	2952.3	2942.8	2936.8	2942.8	2916.5	2961.9	3038.3	3093.2	3150.5
25°	3101.6	3154.1	3145.7	3119.5	3111.1	3118.3	3084.8	3140.9	3211.4	3268.7	3354.6
27.5°	3298.5	3330.8	3308.1	3298.5	3304.5	3303.3	3283.0	3336.7	3401.2	3472.8	3599.4
30°	3512.2	3539.7	3517.0	3507.4	3518.2	3525.4	3502.7	3597.0	3665.0	3742.6	3906.2
32.5°	3863.2	3928.9	3866.8	3742.6	3745.0	3755.8	3758.2	3884.7	4008.9	4069.7	4285.8
35°	4363.4	4415.9	4333.6	4183.2	3995.7	3988.6	4007.7	4196.3	4445.8	4722.8	4975.9
37.5°	4830.2	4906.6	4832.6	4657.1	4429.1	4374.2	4275.1	4499.5	4892.3	5488.0	5803.2
40°	5390.1	5447.4	5300.6	5147.8	4919.7	4842.1	4683.4	4826.6	5365.0	6286.7	6503.9
42.5°	5840.2	5874.8	5753.0	5593.1	5394.9	5336.4	5172.8	5186.0	5870.0	6986.2	7125.9
45°	6256.8	6293.8	6193.5	6057.5	5932.1	5861.7	5742.3	5806.8	6462.2	7724.0	7639.3
47.5°	6573.2	6610.2	6530.2	6433.5	6303.4	6255.6	6258.0	6489.6	7186.8	8313.8	8100.1
50°	7091.3	7077.0	6868.1	6763.0	6661.5	6686.6	6712.9	7042.4	7917.4	8820.0	8526.3
52.5°	7995.0	7924.6	7493.6	7219.0	7093.7	7136.7	7179.6	7617.8	8747.1	9282.0	8853.4
55°	9016.9	8945.3	8578.8	7991.4	7659.6	7728.8	7691.8	8187.2	9444.3	9726.1	9123.2
57.5°	9776.2	9894.4	9754.7	9434.8	8603.9	8513.1	8430.8	8762.7	10007.8	10170.2	9382.2
60°	10436.4	10601.1	10850.7	10763.5	10410.1	10173.8	9418.1	9434.8	10549.8	10478.2	9484.9
62.5°	11081.1	11177.8	11605.1	11699.5	12137.6	12307.1	11539.5	10303.9	11073.9	10691.9	9554.2
65°	10436.4	10560.6	11304.3	11990.8	13406.6	13633.5	13363.6	11877.3	11459.5	10818.4	9474.2
67.5°	9394.2	9469.4	10272.8	11521.6	14070.4	14275.7	14065.6	13321.9	11639.8	10780.2	9225.9
70°	8032.0	8150.2	8939.3	10613.1	14046.5	14156.3	13973.7	13496.2	11571.7	10560.6	8599.1
72.5°	6642.4	6709.3	7377.8	9048.0	13360.1	13452.0	13355.3	13228.7	11342.5	9948.1	7394.5
75°	4992.6	5006.9	5692.1	7145.0	11812.9	12292.8	12411.0	12767.9	10465.0	8527.5	5468.9
77.5°	3347.5	3489.5	4147.3	5460.5	9697.4	10465.0	11024.9	11285.2	8743.6	6364.3	2908.2
80°	1796.7	1832.5	2541.6	3875.1	7369.5	8103.7	8634.9	8639.7	6114.8	3152.9	649.4
82.5°	832.1	797.5	1279.8	2452.1	5104.8	5431.9	5787.7	4848.1	2448.5	538.4	165.9
85°	368.9	389.2	579.0	1195.0	2832.9	3161.2	3115.9	2146.5	429.8	145.6	101.5
87.5°	137.3	144.5	224.4	482.3	1011.2	1103.1	992.1	413.1	56.1	51.3	31.0
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°	2487.9	2487.9	2487.9	2487.9	2487.9	2487.9	2487.9	2487.9	2487.9	2487.9	2487.9
2.5°	2492.7	2492.7	2490.3	2458.1	2450.9	2435.4	2422.3	2431.8	2421.1	2428.2	2421.1
5°	2503.4	2497.5	2483.2	2444.9	2427.0	2392.4	2366.2	2372.1	2357.8	2357.8	2356.6
7.5°	2528.5	2516.6	2491.5	2430.6	2397.2	2347.1	2306.5	2293.3	2279.0	2262.3	2259.9
10°	2569.1	2552.4	2519.0	2435.4	2370.9	2304.1	2233.6	2206.2	2170.4	2144.1	2139.3
12.5°	2625.2	2600.1	2554.8	2453.3	2368.5	2262.3	2168.0	2114.3	2071.3	2033.1	2024.7
15°	2706.4	2681.3	2627.6	2489.1	2369.7	2222.9	2098.7	2009.2	1935.2	1899.4	1900.6
17.5°	2824.6	2806.7	2724.3	2564.3	2392.4	2202.6	2041.4	1899.4	1784.8	1725.1	1716.7
20°	2976.2	2964.3	2864.0	2663.4	2444.9	2206.2	1979.4	1782.4	1614.0	1483.9	1455.3
22.5°	3152.9	3135.0	3012.0	2749.4	2485.5	2196.6	1911.3	1653.4	1400.4	1230.8	1197.4
25°	3349.9	3340.3	3148.1	2824.6	2490.3	2156.0	1813.4	1486.3	1168.8	987.3	958.6
27.5°	3601.8	3545.7	3271.1	2865.2	2479.6	2076.1	1673.7	1257.1	928.8	803.4	772.4
30°	3877.5	3764.1	3390.5	2896.2	2427.0	1948.3	1474.4	992.1	691.2	580.2	564.7
32.5°	4183.2	4013.6	3502.7	2893.8	2333.9	1751.3	1215.3	688.8	466.8	421.4	405.9
35°	4735.9	4448.2	3637.6	2854.4	2177.5	1517.3	858.4	448.9	346.2	318.8	315.2
37.5°	5503.5	5015.2	3819.0	2779.2	1975.8	1245.2	559.9	306.8	296.1	297.3	296.1
40°	6132.7	5648.0	4070.9	2665.8	1721.5	889.4	335.5	273.4	279.4	282.9	284.1
42.5°	6748.7	6163.7	4382.5	2523.7	1455.3	577.8	272.2	261.4	256.7	262.6	265.0
45°	7244.1	6613.8	4676.2	2357.8	1143.7	341.4	263.8	242.3	234.0	236.4	240.0
47.5°	7640.5	6971.9	4852.9	2164.4	835.7	257.9	256.7	225.6	213.7	211.3	210.1
50°	8014.1	7278.7	4966.3	1930.4	532.4	248.3	237.6	206.5	192.2	189.8	189.8
52.5°	8268.4	7479.3	5004.5	1653.4	317.6	242.3	224.4	191.0	171.9	175.5	177.9
55°	8516.7	7682.2	4925.7	1292.9	243.5	226.8	210.1	171.9	156.4	170.7	175.5
57.5°	8634.9	7712.1	4747.8	898.9	236.4	205.3	189.8	154.0	142.1	150.4	150.4
60°	8730.4	7691.8	4499.5	569.5	230.4	191.0	173.1	139.7	125.4	120.6	117.0
62.5°	8667.1	7610.6	4000.5	371.3	213.7	174.3	157.6	128.9	108.6	95.5	94.3
65°	8532.2	7324.1	3193.5	292.5	198.2	165.9	143.3	115.8	95.5	80.0	78.8
67.5°	8134.7	6626.9	2066.5	242.3	189.8	160.0	132.5	107.4	84.8	69.2	68.0
70°	7182.0	5353.1	633.9	217.3	197.0	154.0	130.1	97.9	75.2	60.9	58.5
72.5°	5679.0	3576.7	235.2	180.3	169.5	148.0	126.5	88.3	64.5	51.3	48.9
75°	3657.9	1168.8	199.4	139.7	144.5	140.9	117.0	81.2	54.9	41.8	40.6
77.5°	1036.2	244.7	181.5	102.7	127.7	136.1	102.7	68.0	48.9	35.8	34.6
80°	217.3	174.3	165.9	72.8	95.5	88.3	69.2	52.5	46.6	31.0	31.0
82.5°	142.1	138.5	142.1	50.1	63.3	64.5	54.9	45.4	40.6	28.7	28.7
85°	100.3	126.5	68.0	35.8	29.8	27.5	32.2	39.4	35.8	23.9	23.9
87.5°	34.6	20.3	14.3	14.3	13.1	13.1	15.5	17.9	19.1	19.1	17.9
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)