

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: P301881

Luminaire Tested: **GLNA-AF-04-LED-E1-SL4-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301881
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
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-SL4-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14304.7 lumens
Efficiency: N/A
Efficacy: 83.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 171
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

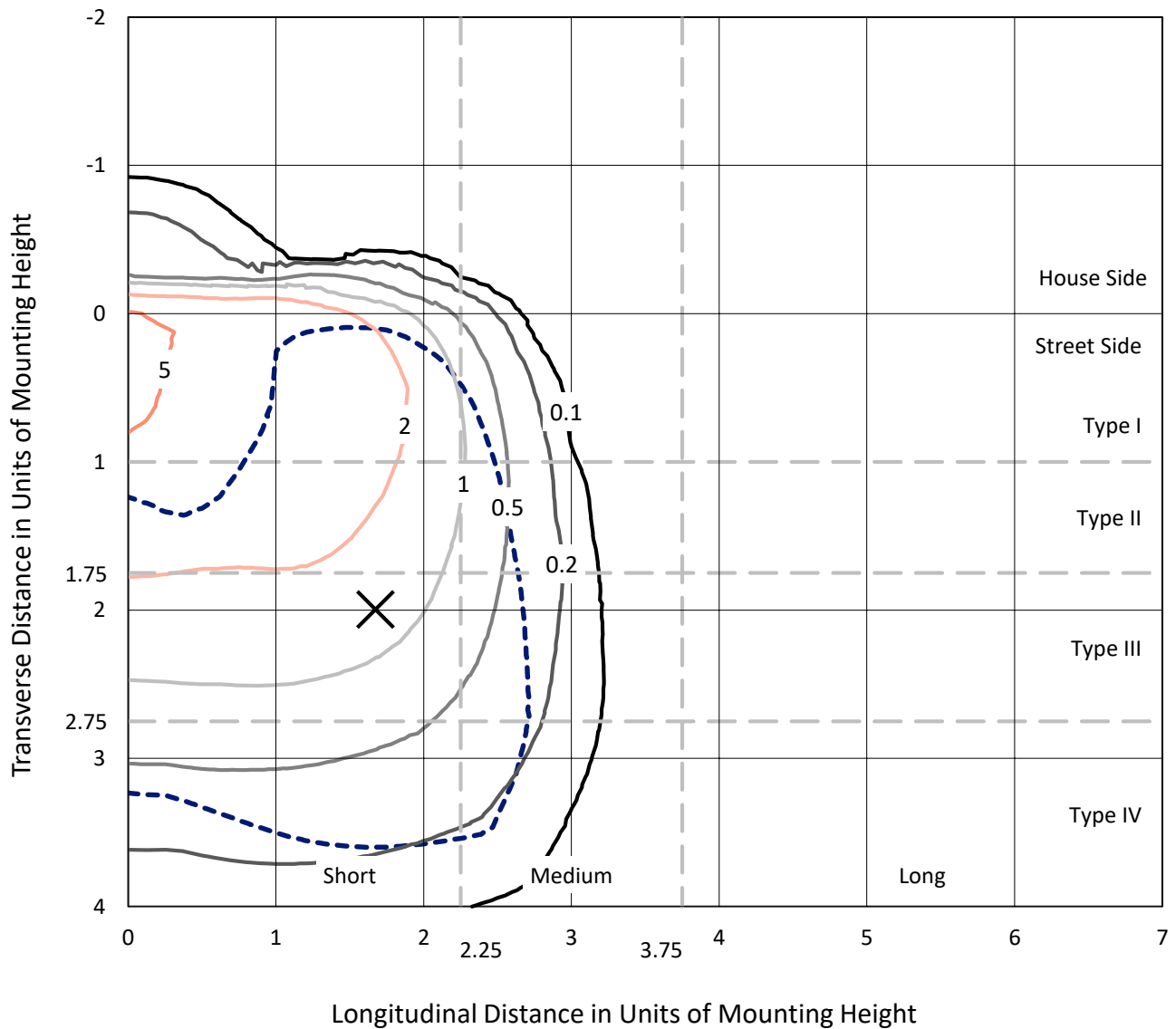


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

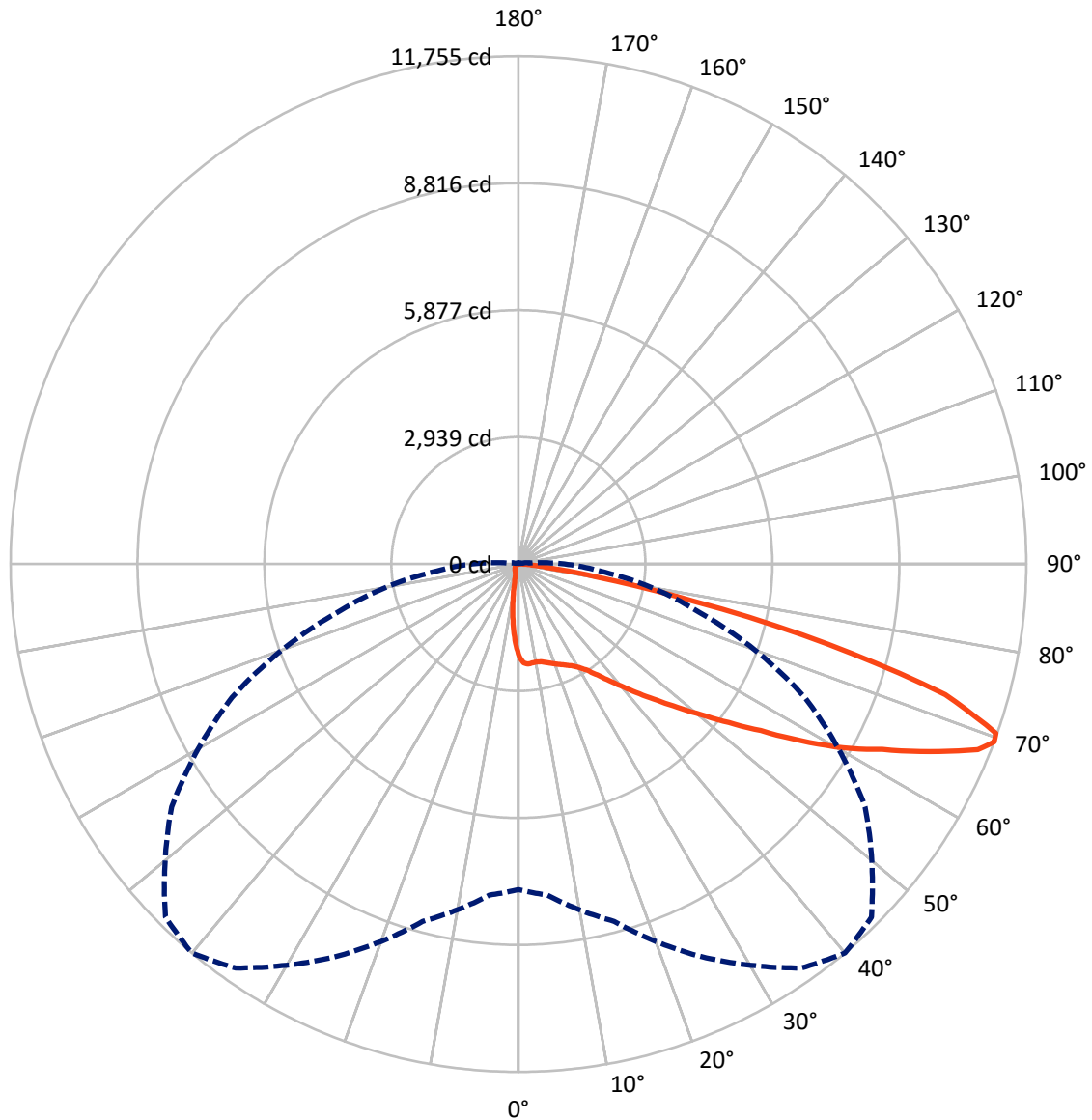


Based on 20 foot mounting height. Maximum calculated value = 5.8 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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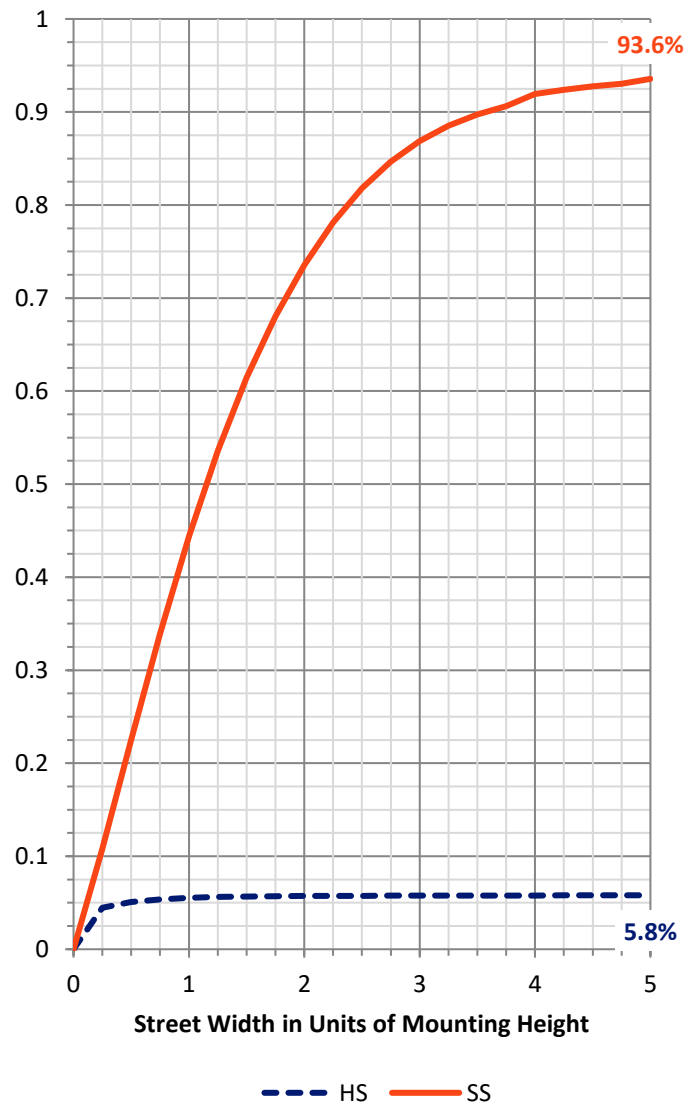
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	836.9	0.0	836.9
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	13467.8	0.0	13467.8
	% Fixture	94.1	0.0	94.1
Total	Lumens	14304.7	0.0	14304.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.3	1.2
10°-20°	426.1	3.0
20°-30°	717.8	5.0
30°-40°	1175.0	8.2
40°-50°	2034.5	14.2
50°-60°	3204.5	22.4
60°-70°	4184.9	29.3
70°-80°	2155.4	15.1
80°-90°	233.2	1.6
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°	14304.7	100.0
0°-180°	14304.7	100.0



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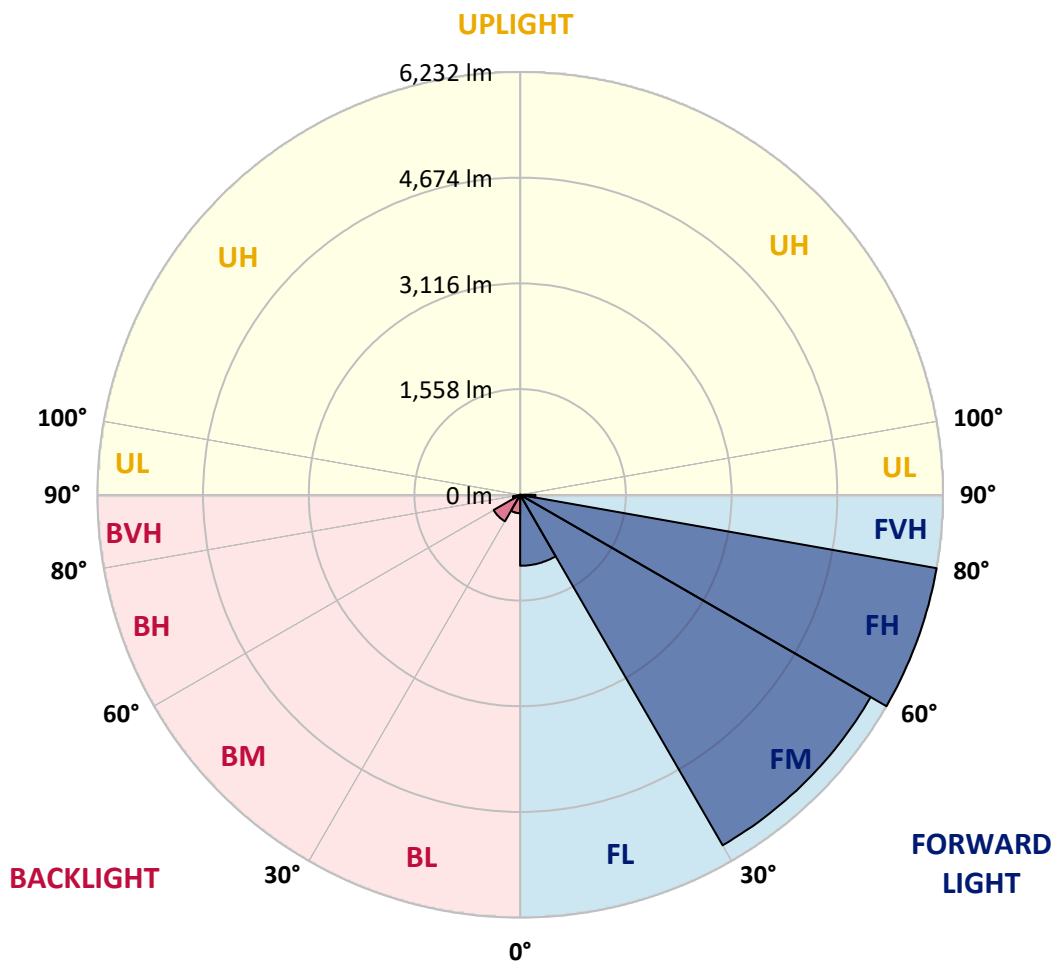
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1046.1	7.3			
FM	(30°-60°)	5964.2	41.7			
FH	(60°-80°)	6231.7	43.6			G3/7500
FVH	(80°-90°)	225.8	1.6			G3/500
BL	(0°-30°)	271.1	1.9	B1/500		
BM	(30°-60°)	449.8	3.1	B1/1000		
BH	(60°-80°)	108.7	0.8	B0/110		G0/110
BVH	(80°-90°)	7.3	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2
2.5°	2346.7	2333.9	2326.2	2316.0	2303.2	2292.2	2287.9	2256.4	2226.6	2185.7	2138.9
5°	2390.1	2385.8	2372.2	2358.6	2343.3	2326.2	2316.9	2279.4	2236.8	2177.2	2095.5
7.5°	2394.3	2389.2	2372.2	2353.5	2332.2	2311.7	2295.6	2258.1	2218.9	2158.5	2058.9
10°	2387.5	2381.6	2368.8	2348.4	2322.0	2302.4	2286.2	2250.4	2217.2	2162.7	2052.0
12.5°	2379.9	2373.9	2367.9	2357.7	2334.7	2321.1	2307.5	2273.4	2243.6	2197.6	2076.7
15°	2387.5	2384.1	2390.9	2386.7	2373.9	2362.0	2348.4	2317.7	2290.5	2252.1	2121.9
17.5°	2419.9	2419.9	2441.2	2443.7	2431.8	2414.8	2395.2	2364.5	2341.5	2309.2	2175.5
20°	2495.7	2493.1	2520.4	2525.5	2496.5	2470.1	2441.2	2403.7	2385.8	2365.4	2228.3
22.5°	2625.9	2614.0	2630.2	2625.1	2568.0	2527.2	2491.4	2445.4	2436.1	2426.7	2287.1
25°	2795.4	2788.6	2799.6	2749.4	2648.9	2593.6	2551.0	2499.1	2499.1	2508.4	2353.5
27.5°	3041.5	3015.9	2978.4	2889.9	2739.2	2668.5	2622.5	2567.2	2581.7	2616.6	2441.2
30°	3293.5	3265.4	3179.4	3043.2	2849.0	2774.9	2721.3	2663.4	2697.5	2761.3	2558.7
32.5°	3542.1	3510.6	3388.9	3216.9	3006.5	2932.5	2880.5	2816.7	2873.7	2981.0	2730.7
35°	3783.1	3755.0	3614.5	3411.8	3216.0	3154.7	3107.0	3051.7	3124.9	3274.8	2973.3
37.5°	4053.9	4023.2	3852.1	3632.4	3470.6	3426.3	3391.4	3336.1	3463.8	3683.5	3311.4
40°	4386.8	4334.8	4104.1	3885.3	3765.2	3743.9	3720.1	3712.4	3910.8	4214.8	3761.8
42.5°	4768.2	4683.1	4368.1	4151.8	4088.8	4104.1	4098.1	4132.2	4470.2	4875.5	4310.2
45°	5149.7	5039.9	4661.8	4436.2	4444.7	4498.3	4531.5	4667.8	5171.0	5633.3	4900.2
47.5°	5473.3	5365.1	4943.6	4743.6	4845.7	4951.3	5041.6	5299.6	5891.3	6379.2	5359.2
50°	5750.0	5647.8	5242.5	5081.6	5311.5	5481.8	5628.2	6010.5	6666.2	6947.2	5681.0
52.5°	5976.5	5908.4	5552.5	5469.0	5843.7	6093.1	6307.7	6765.8	7352.5	7408.7	5931.4
55°	6197.0	6148.5	5885.4	5929.7	6468.6	6808.4	7080.0	7567.0	7943.4	7793.5	6171.5
57.5°	6450.8	6406.5	6265.1	6513.8	7290.3	7717.7	8014.1	8277.2	8463.6	8186.9	6398.0
60°	6709.6	6684.1	6687.5	7162.6	8233.7	8644.1	8807.6	8875.7	8974.5	8557.3	6410.7
62.5°	6956.5	7005.1	7170.2	7884.6	9137.1	9452.2	9534.8	9602.1	9486.3	8616.0	5922.8
65°	7374.6	7453.8	7848.0	8851.1	10130.8	10468.0	10553.1	10322.4	9567.1	7856.5	4817.6
67.5°	7579.0	7723.7	8427.0	9751.9	11094.7	11469.3	11437.8	10369.2	8585.4	5991.0	3091.7
69°	7536.4	7690.5	8560.7	10027.8	11414.8	11754.6	11554.5	9796.2	7314.1	4340.0	1897.9
70°	7367.8	7523.6	8491.7	10017.6	11455.7	11724.8	11338.2	9088.6	6184.2	3173.4	1187.0
72.5°	6152.7	6287.3	7538.9	9054.6	10553.1	10334.3	9485.4	6296.6	3013.4	864.2	267.4
75°	3787.3	3862.3	5409.4	6821.1	7970.6	7408.7	6319.6	3132.6	898.3	244.4	148.2
77.5°	2001.0	2035.0	2961.4	4020.7	5052.6	4180.7	3239.0	1221.9	413.8	153.3	107.3
80°	1182.7	1208.2	1594.8	1838.3	2186.6	1826.4	1295.1	750.1	296.3	96.2	95.4
82.5°	676.9	693.1	1156.3	1021.8	861.7	735.7	644.6	711.0	178.0	64.7	98.8
85°	248.6	252.0	650.5	777.4	512.6	304.8	320.2	589.2	47.7	40.9	77.5
87.5°	115.8	113.2	334.6	476.0	299.7	193.3	249.5	129.4	18.7	26.4	21.3
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°	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2	2137.2
2.5°	2111.7	2080.1	2023.1	1964.3	1904.7	1858.8	1813.6	1777.9	1766.0	1743.8	1745.5
5°	2046.9	1989.0	1869.8	1748.9	1622.9	1519.0	1421.1	1341.9	1303.6	1264.4	1264.4
7.5°	1990.7	1906.4	1720.0	1523.3	1319.8	1148.6	994.5	878.7	814.9	763.8	762.9
10°	1969.5	1855.4	1594.8	1313.0	1029.4	796.1	613.1	495.6	435.1	395.9	394.2
12.5°	1978.8	1837.5	1498.6	1118.8	762.9	511.7	355.1	279.3	253.7	241.8	241.8
15°	2006.1	1832.4	1402.4	929.0	539.0	320.2	235.9	215.4	213.7	213.7	213.7
17.5°	2039.3	1834.1	1303.6	744.2	367.0	229.0	203.5	200.9	202.7	202.7	202.7
20°	2073.3	1834.9	1197.2	573.0	258.8	199.2	191.6	190.7	192.4	192.4	193.3
22.5°	2115.1	1839.2	1090.7	428.3	213.7	188.2	182.2	182.2	183.1	183.1	182.2
25°	2162.7	1847.7	980.0	317.6	195.0	180.5	175.4	174.6	175.4	174.6	173.7
27.5°	2222.3	1859.6	856.6	248.6	186.5	172.8	168.6	168.6	167.7	166.9	166.0
30°	2297.3	1873.2	717.8	211.2	178.0	166.0	161.8	160.9	160.1	158.4	158.4
32.5°	2411.4	1903.0	580.7	191.6	168.6	156.7	153.3	153.3	151.6	149.9	149.0
35°	2586.8	1961.8	458.1	179.7	158.4	146.5	142.2	142.2	140.5	139.6	138.8
37.5°	2829.4	2051.2	355.9	168.6	148.2	135.4	131.1	130.3	128.6	126.9	126.0
40°	3152.2	2161.9	280.1	158.4	137.9	124.3	120.9	119.2	115.8	113.2	113.2
42.5°	3557.5	2287.9	227.3	147.3	126.0	114.1	111.5	109.0	103.0	100.5	99.6
45°	3981.5	2401.2	192.4	134.5	114.1	103.9	102.2	97.9	90.3	87.7	87.7
47.5°	4287.2	2427.5	169.4	122.6	103.0	92.8	92.0	84.3	77.5	75.8	74.9
50°	4477.9	2375.6	150.7	110.7	92.8	82.6	80.0	70.7	66.4	64.7	63.9
52.5°	4606.5	2282.8	135.4	100.5	83.4	73.2	67.3	60.5	57.0	55.3	55.3
55°	4709.5	2151.7	120.1	91.1	75.8	65.6	57.0	51.9	48.5	46.8	46.8
57.5°	4738.4	1973.7	104.7	83.4	68.1	57.9	48.5	45.1	40.9	40.0	40.0
60°	4528.1	1652.7	92.8	74.1	61.3	50.2	42.6	38.3	34.1	33.2	32.4
62.5°	3973.8	1278.9	81.7	65.6	53.6	43.4	36.6	31.5	28.1	28.1	28.1
65°	3031.2	857.4	71.5	57.0	46.8	36.6	31.5	25.5	23.8	23.8	24.7
67.5°	1814.5	466.6	61.3	48.5	40.0	30.7	26.4	22.1	21.3	22.1	22.1
69°	1063.5	274.2	55.3	43.4	34.9	27.2	23.0	19.6	21.3	22.1	22.1
70°	656.5	184.8	51.1	39.2	31.5	24.7	21.3	18.7	20.4	21.3	21.3
72.5°	183.1	95.4	40.9	30.7	25.5	20.4	17.0	17.0	19.6	20.4	20.4
75°	119.2	70.7	31.5	23.0	19.6	16.2	14.5	16.2	18.7	19.6	19.6
77.5°	98.8	57.9	25.5	18.7	16.2	15.3	13.6	14.5	17.0	17.9	17.9
80°	90.3	40.9	20.4	17.0	14.5	13.6	12.8	11.9	15.3	16.2	16.2
82.5°	86.0	32.4	17.9	15.3	13.6	11.9	11.1	11.9	13.6	14.5	15.3
85°	53.6	21.3	16.2	14.5	11.9	11.1	11.1	11.1	12.8	13.6	13.6
87.5°	19.6	17.0	14.5	11.9	10.2	10.2	10.2	10.2	11.1	12.8	12.8
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)