

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: P453681

Luminaire Tested: **GALN-SA4D-727-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453681
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-727-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25052 lumens
Efficiency: N/A
Efficacy: 102.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

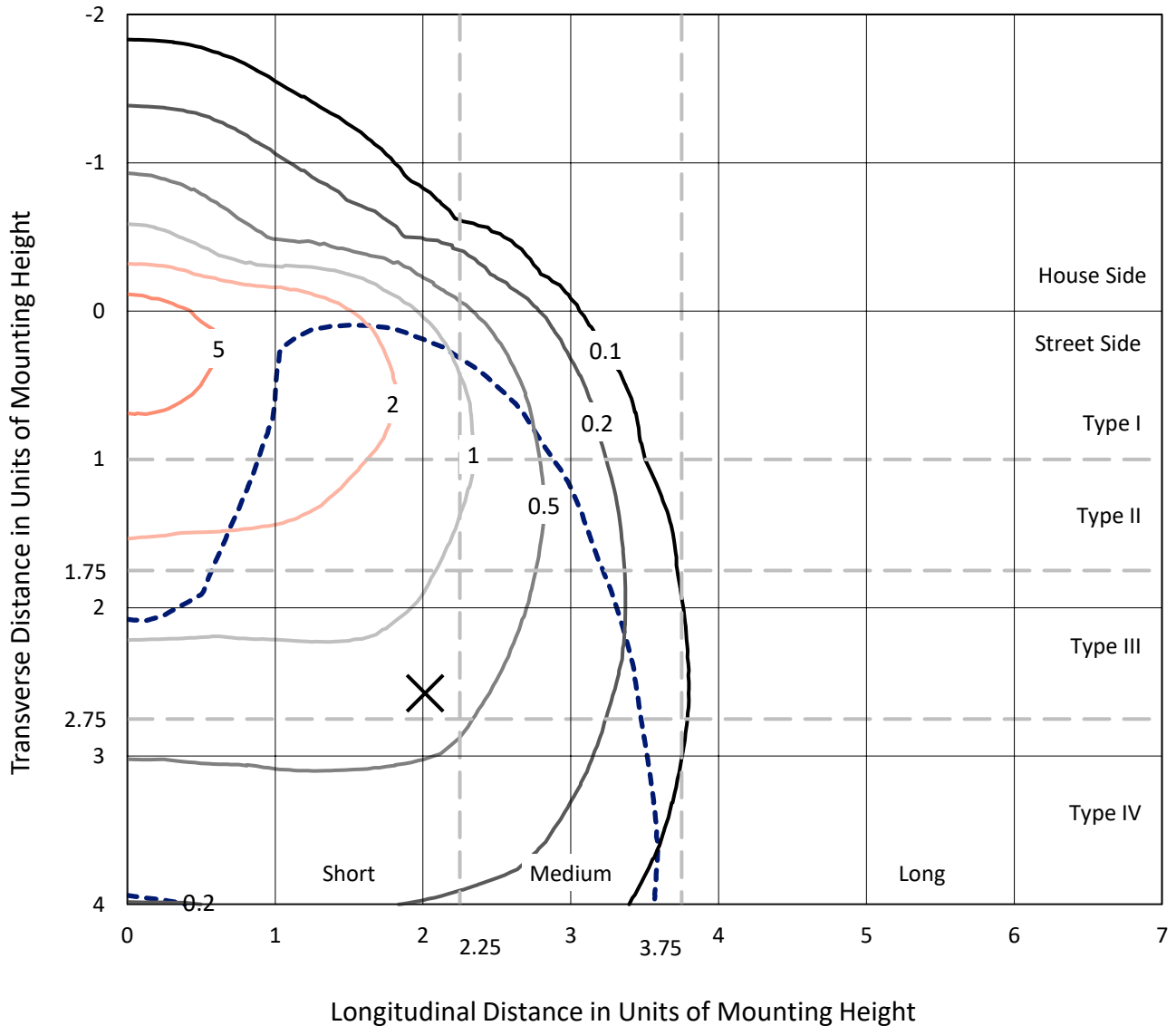
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

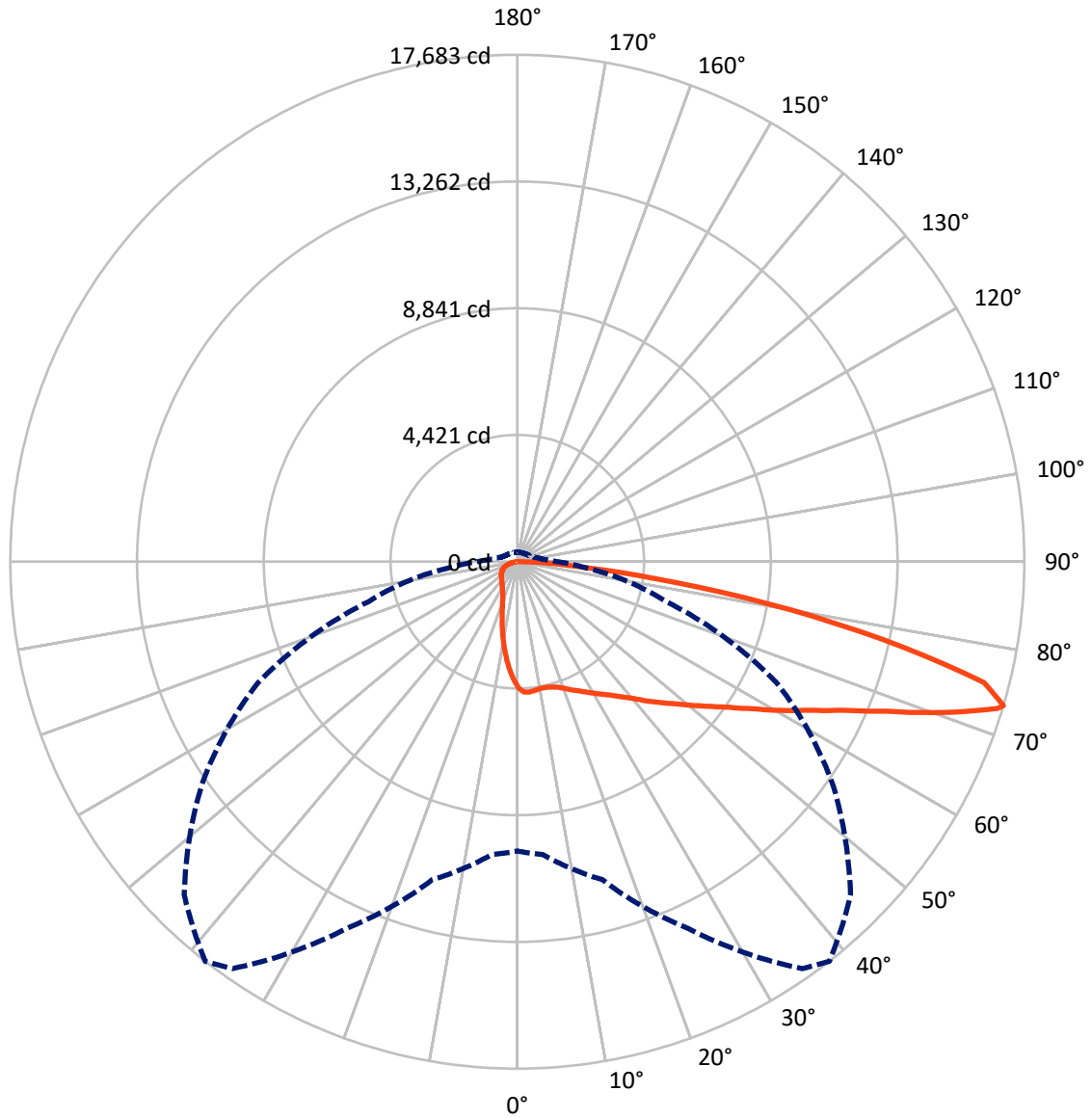
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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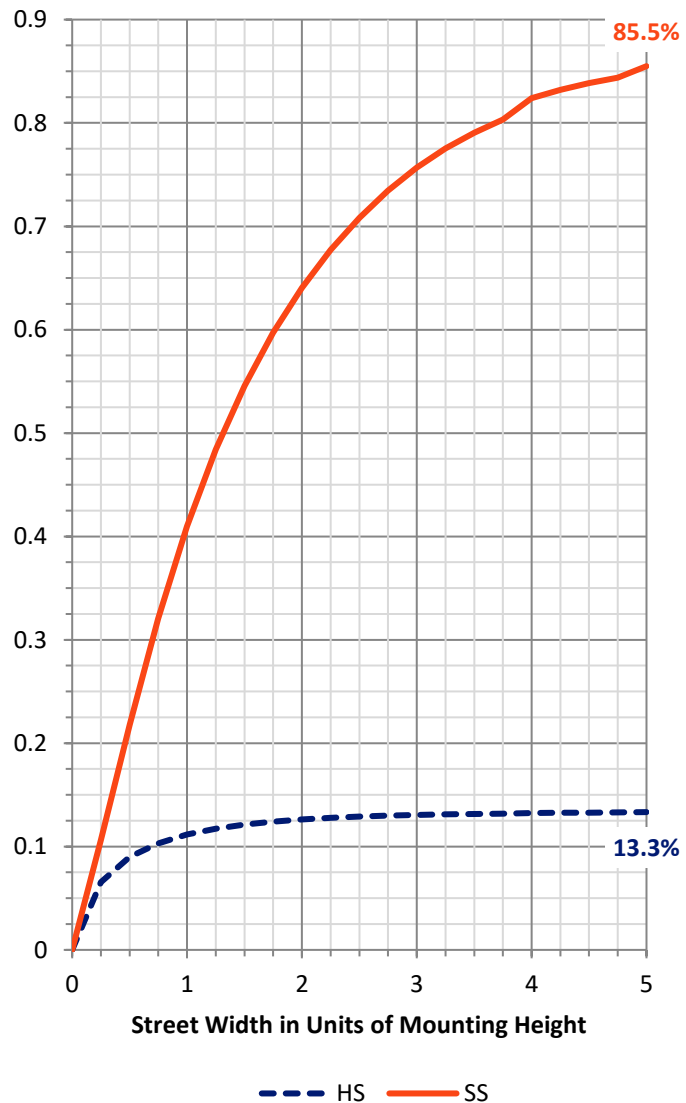
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3367.7	0.0	3367.7
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	21684.3	0.0	21684.3
	% Fixture	86.6	0.0	86.6
Total	Lumens	25052.0	0.0	25052.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	384.2	1.5
10°-20°	985.2	3.9
20°-30°	1534.1	6.1
30°-40°	2250.1	9.0
40°-50°	3337.8	13.3
50°-60°	4729.0	18.9
60°-70°	5998.9	23.9
70°-80°	4993.7	19.9
80°-90°	839.0	3.3
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°	25052.0	100.0
0°-180°	25052.0	100.0



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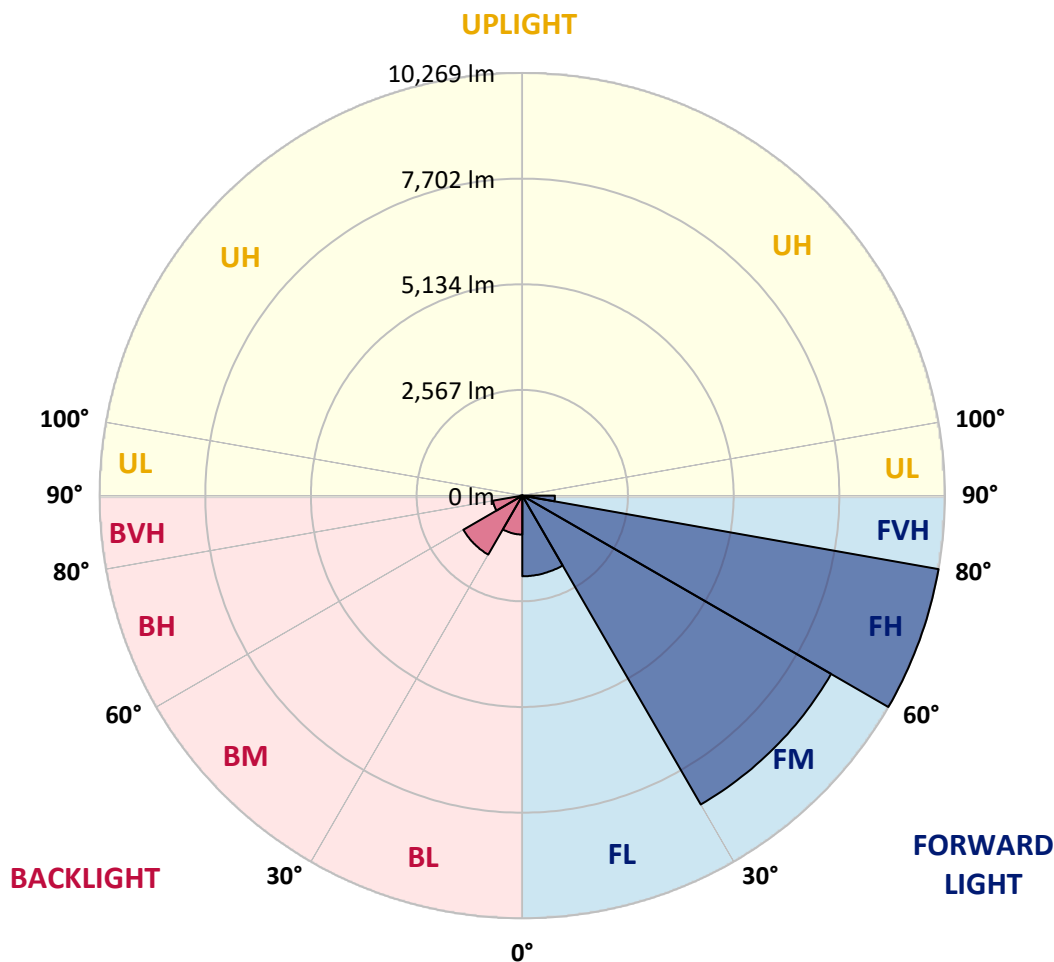
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1958.4	7.8			
FM	(30°-60°)	8663.7	34.6			
FH	(60°-80°)	10268.7	41.0			G4/12000
FVH	(80°-90°)	793.5	3.2			G5
BL	(0°-30°)	945.0	3.8	B2/1000		
BM	(30°-60°)	1653.4	6.6	B2/2500		
BH	(60°-80°)	723.9	2.9	B2/1000		G2/1000
BVH	(80°-90°)	45.5	0.2			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°	38°	45°	55°	65°	75°	85°
0°	4401.2	4401.2	4401.2	4401.2	4401.2	4401.2	4401.2	4401.2	4401.2	4401.2	4401.2
2.5°	4578.1	4600.7	4589.4	4573.8	4563.9	4554.0	4539.9	4498.8	4466.3	4430.9	4375.7
5°	4612.0	4626.2	4616.3	4596.4	4573.8	4563.9	4537.0	4483.3	4430.9	4371.5	4289.4
7.5°	4592.2	4597.9	4586.5	4562.5	4542.7	4524.3	4493.2	4433.8	4370.1	4297.9	4190.4
10°	4521.5	4542.7	4542.7	4522.9	4503.1	4493.2	4462.0	4405.5	4347.5	4265.4	4138.1
12.5°	4463.5	4486.1	4504.5	4498.8	4497.4	4497.4	4473.4	4430.9	4363.0	4285.2	4133.8
15°	4423.8	4450.7	4490.3	4513.0	4527.1	4531.4	4521.5	4484.7	4415.4	4324.8	4150.8
17.5°	4415.4	4447.9	4520.0	4569.6	4606.3	4604.9	4602.1	4551.2	4474.8	4381.4	4172.0
20°	4453.6	4496.0	4596.4	4674.3	4728.0	4718.1	4702.5	4636.1	4546.9	4442.2	4191.8
22.5°	4568.1	4612.0	4722.4	4807.2	4859.6	4859.6	4812.9	4725.2	4630.4	4513.0	4218.7
25°	4732.3	4780.4	4897.8	4984.1	5008.1	4989.7	4943.1	4836.9	4728.0	4614.8	4275.3
27.5°	4933.1	4991.2	5100.1	5172.2	5165.2	5151.0	5102.9	4967.1	4858.2	4754.9	4371.5
30°	5183.6	5226.0	5339.2	5356.2	5330.7	5327.9	5260.0	5124.1	5022.3	4943.1	4508.7
32.5°	5419.8	5458.0	5548.6	5555.6	5510.4	5516.0	5452.4	5327.9	5269.9	5241.6	4739.3
35°	5670.2	5690.0	5767.8	5759.3	5729.6	5725.4	5699.9	5581.1	5599.5	5650.4	5066.1
37.5°	5879.6	5919.2	5963.1	5970.1	5968.7	5982.9	5999.9	5943.3	6049.4	6209.2	5494.8
40°	6072.0	6106.0	6171.0	6193.7	6248.8	6277.1	6335.1	6336.6	6581.3	6844.4	6022.5
42.5°	6202.2	6260.2	6381.8	6422.9	6557.3	6642.1	6728.4	6820.4	7175.5	7513.6	6645.0
45°	6315.3	6391.7	6594.0	6721.4	6903.9	7007.1	7189.6	7382.0	7892.8	8335.6	7277.3
47.5°	6486.5	6554.4	6786.4	7011.4	7287.3	7406.1	7679.1	7966.3	8634.1	9119.3	7882.9
50°	6724.2	6765.2	7001.5	7367.9	7720.2	7872.9	8233.7	8648.2	9426.3	9893.2	8414.8
52.5°	7028.4	7045.3	7233.5	7721.6	8185.6	8375.2	8853.4	9337.2	10119.5	10565.2	8836.4
55°	7387.7	7359.4	7506.5	8096.5	8717.5	8965.1	9478.7	10034.6	10899.0	11108.4	9143.4
57.5°	7742.8	7698.9	7816.4	8552.0	9374.0	9672.5	10270.9	10753.3	11595.1	11616.3	9358.4
60°	8119.1	8086.6	8226.6	9086.8	10179.0	10532.6	11085.8	11498.9	12268.5	11970.0	9392.4
62.5°	8505.3	8453.0	8652.5	9688.0	11085.8	11406.9	11943.1	12291.1	12929.2	12101.6	9065.6
65°	8880.2	8856.2	9164.6	10402.5	12118.5	12483.5	13004.2	13240.4	13458.3	11903.5	8254.9
67.5°	9279.2	9327.3	9819.6	11356.0	13465.4	13923.7	14485.4	14263.3	13609.7	10965.5	6952.0
70°	9887.5	9918.6	10679.8	12605.2	15201.2	15754.4	16026.0	14626.8	12879.7	9184.4	5226.0
72.5°	10149.2	10286.5	11448.0	13916.7	17173.4	17511.5	16543.8	13816.2	10729.3	6238.9	2746.0
73°	10091.2	10255.3	11483.3	14116.1	17327.6	17682.7	16433.5	13398.9	9973.8	5373.1	2354.1
75°	9368.3	9570.6	11023.5	13949.2	17027.6	16815.4	14659.4	11419.7	6739.8	2443.2	1072.4
77.5°	7391.9	7449.9	8734.5	11264.0	13408.8	13015.5	10971.2	7137.3	2753.1	908.3	608.3
80°	3708.0	3921.6	4923.2	6452.6	8966.5	8837.8	6925.1	3375.5	1147.3	533.4	403.2
82.5°	1784.0	1935.3	2398.0	3146.4	4954.4	4836.9	3429.3	1844.8	728.6	311.2	237.7
85°	1148.8	1261.9	1526.5	1501.0	2037.2	1945.2	1540.6	1396.3	431.5	162.7	165.5
87.5°	758.3	830.4	996.0	796.5	741.3	670.6	680.5	786.6	84.9	62.2	22.6
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°	4401.2	4401.2	4401.2	4401.2	4401.2	4401.2	4401.2	4401.2	4401.2	4401.2	4401.2
2.5°	4353.1	4334.7	4273.9	4214.5	4157.9	4104.1	4068.8	4022.1	3990.9	3999.4	4012.2
5°	4244.2	4203.2	4095.6	3990.9	3891.9	3774.5	3679.7	3603.3	3545.3	3524.1	3519.8
7.5°	4129.6	4060.3	3906.1	3726.4	3558.0	3412.3	3244.0	3160.5	3062.9	3028.9	3017.6
10°	4060.3	3966.9	3750.4	3500.0	3246.8	3004.9	2822.4	2673.8	2539.4	2514.0	2501.2
12.5°	4040.5	3917.4	3625.9	3303.4	2966.7	2669.6	2399.4	2204.1	2074.0	2044.3	2000.4
15°	4029.1	3876.3	3509.9	3105.3	2678.1	2315.9	2031.5	1803.8	1684.9	1605.7	1607.1
17.5°	4019.2	3829.7	3379.8	2888.9	2429.1	2011.7	1697.7	1492.5	1383.6	1341.2	1336.9
20°	4005.1	3774.5	3229.8	2661.1	2144.7	1734.5	1450.1	1297.3	1223.7	1188.4	1187.0
22.5°	3999.4	3720.7	3082.7	2429.1	1892.9	1520.8	1286.0	1178.5	1131.8	1107.7	1107.7
25°	4013.6	3682.5	2928.5	2208.4	1669.4	1338.3	1172.8	1099.2	1072.4	1059.6	1055.4
27.5°	4057.4	3665.6	2775.7	1987.7	1464.2	1213.8	1096.4	1045.5	1025.7	1015.8	1017.2
30°	4140.9	3664.1	2625.7	1769.8	1311.5	1119.0	1035.6	1000.2	984.6	979.0	977.6
32.5°	4275.3	3695.3	2478.6	1590.2	1182.7	1039.8	979.0	953.5	946.5	942.2	940.8
35°	4503.1	3783.0	2332.9	1426.0	1083.7	969.1	925.2	912.5	902.6	906.8	908.3
37.5°	4810.1	3934.4	2194.2	1297.3	1008.7	916.7	880.0	868.6	863.0	867.2	871.5
40°	5221.8	4152.2	2078.2	1194.0	954.9	872.9	840.3	830.4	824.8	831.9	833.3
42.5°	5675.9	4404.0	1982.0	1113.4	911.1	836.1	805.0	793.7	789.4	793.7	795.1
45°	6142.7	4696.9	1932.5	1055.4	874.3	809.2	776.7	764.0	754.0	751.2	755.5
47.5°	6602.5	4951.5	1931.1	1020.0	844.6	785.2	749.8	735.7	722.9	715.9	714.4
50°	6977.4	5153.8	1965.1	1004.5	819.1	758.3	722.9	708.8	691.8	677.7	680.5
52.5°	7260.4	5285.4	1980.6	997.4	805.0	730.0	694.6	681.9	662.1	643.7	643.7
55°	7442.9	5316.5	1942.4	990.3	793.7	700.3	662.1	650.8	631.0	612.6	612.6
57.5°	7505.1	5220.3	1805.2	973.3	782.3	674.8	629.6	619.6	604.1	585.7	582.9
60°	7360.8	4895.0	1564.7	922.4	759.7	647.9	594.2	589.9	584.3	568.7	567.3
62.5°	6804.8	4204.6	1303.0	855.9	721.5	619.6	561.6	568.7	573.0	564.5	563.1
65°	5879.6	3413.7	1113.4	764.0	670.6	580.0	526.3	544.7	556.0	556.0	553.2
67.5°	4769.0	2621.5	938.0	684.7	606.9	526.3	486.7	500.8	509.3	506.5	513.5
70°	3389.7	1775.5	764.0	594.2	526.3	465.4	435.7	435.7	430.1	427.2	427.2
72.5°	1643.9	1014.4	619.6	496.6	448.5	397.5	373.5	363.6	352.3	350.9	343.8
73°	1373.7	909.7	591.4	478.2	430.1	387.6	360.8	345.2	338.1	332.5	331.0
75°	836.1	690.4	493.7	403.2	366.4	333.9	309.8	295.7	288.6	284.4	282.9
77.5°	550.3	515.0	383.4	308.4	280.1	260.3	250.4	236.3	232.0	226.4	226.4
80°	410.3	393.3	274.5	217.9	200.9	183.9	181.1	178.3	166.9	159.9	157.0
82.5°	264.6	280.1	186.7	145.7	127.3	113.2	114.6	118.8	107.5	97.6	94.8
85°	188.2	202.3	113.2	66.5	53.8	46.7	52.3	46.7	48.1	38.2	31.1
87.5°	31.1	53.8	19.8	8.5	4.2	2.8	0.0	0.0	0.0	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)