

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: P301009

Luminaire Tested: **GLNA-AF-09-LED-E1-SL4-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301009
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-09-LED-E1-SL4-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32107.9 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G5

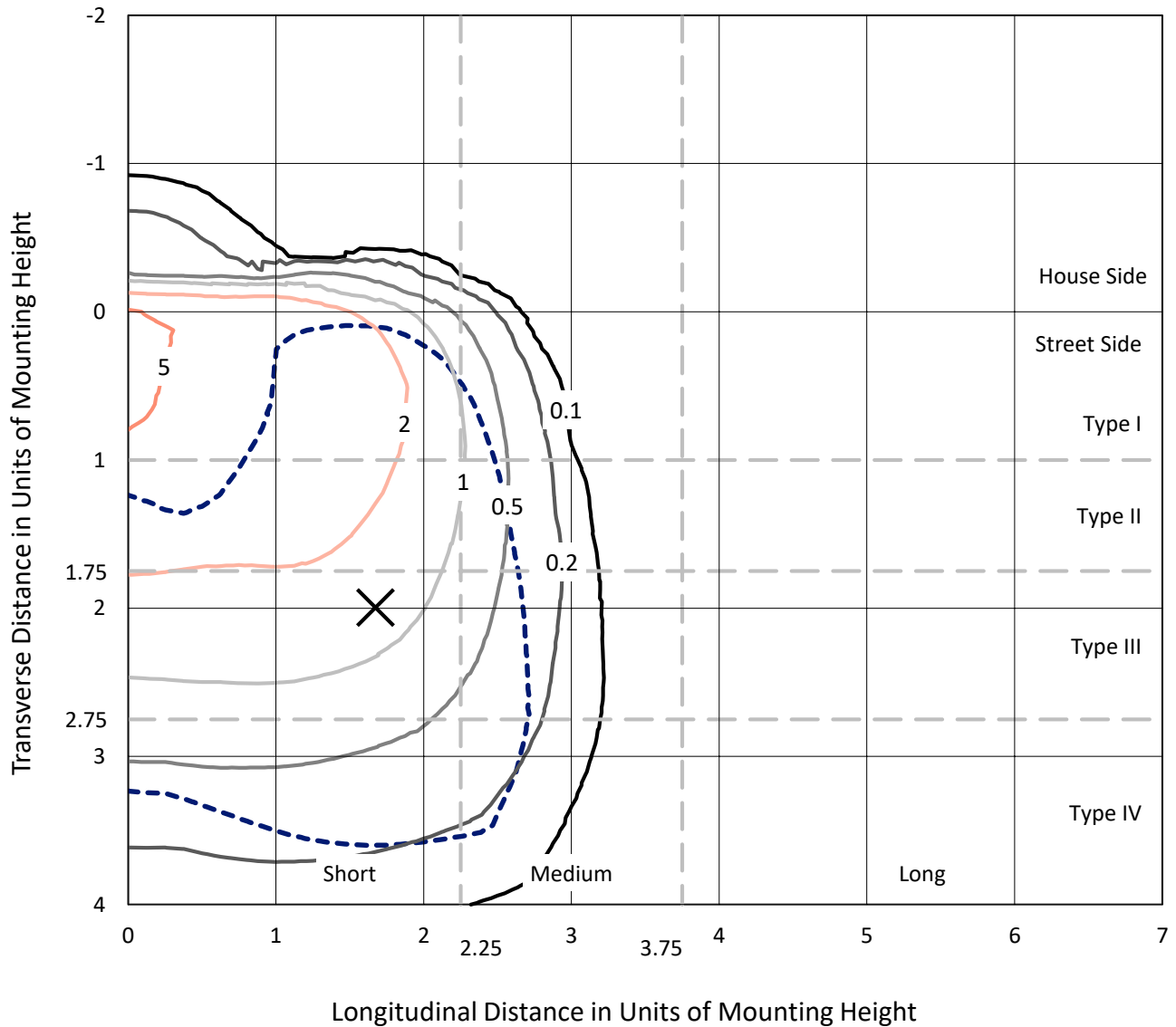
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

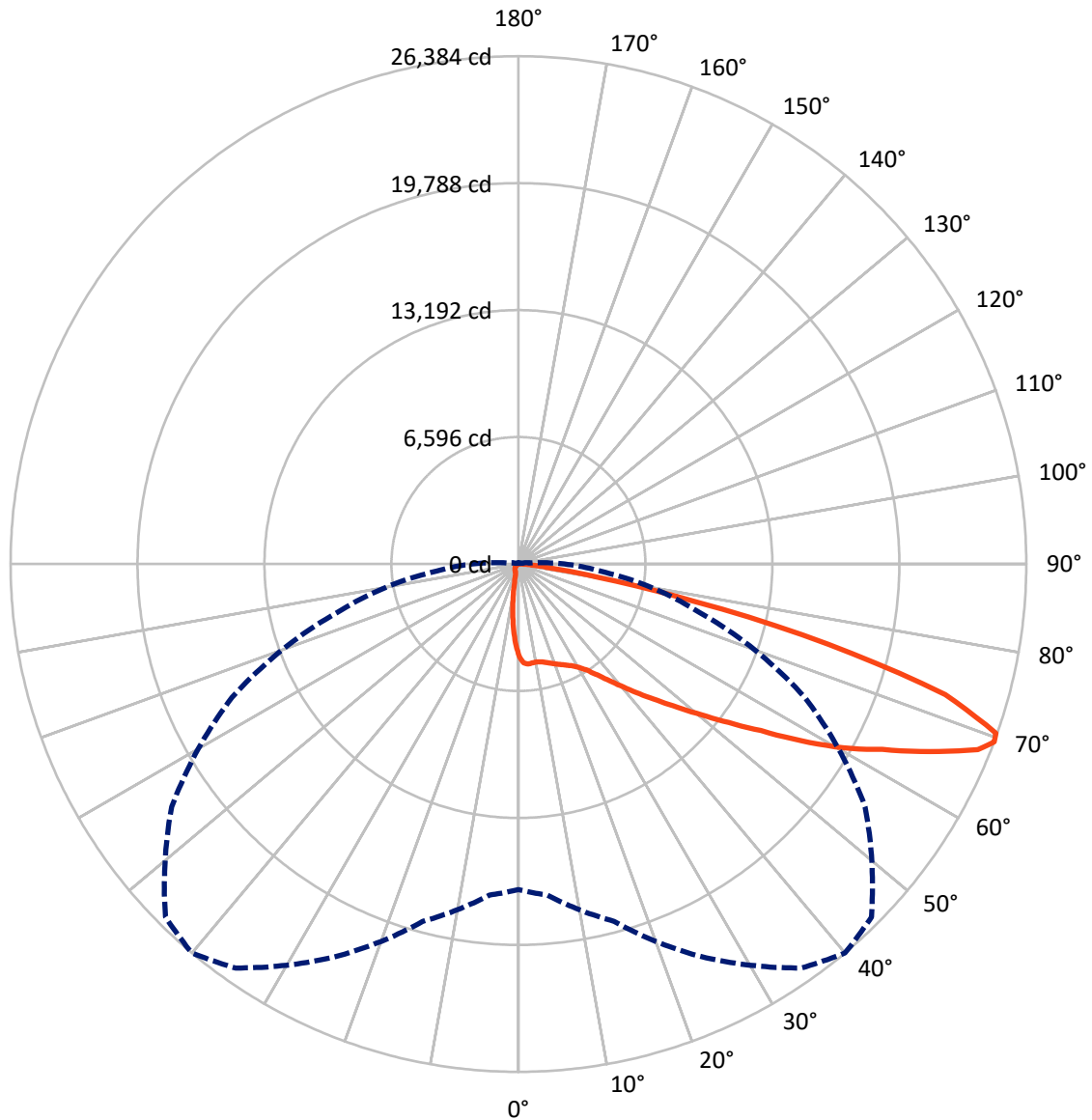
× Max cd
 - - - 1/2 Max cd



Based on 30 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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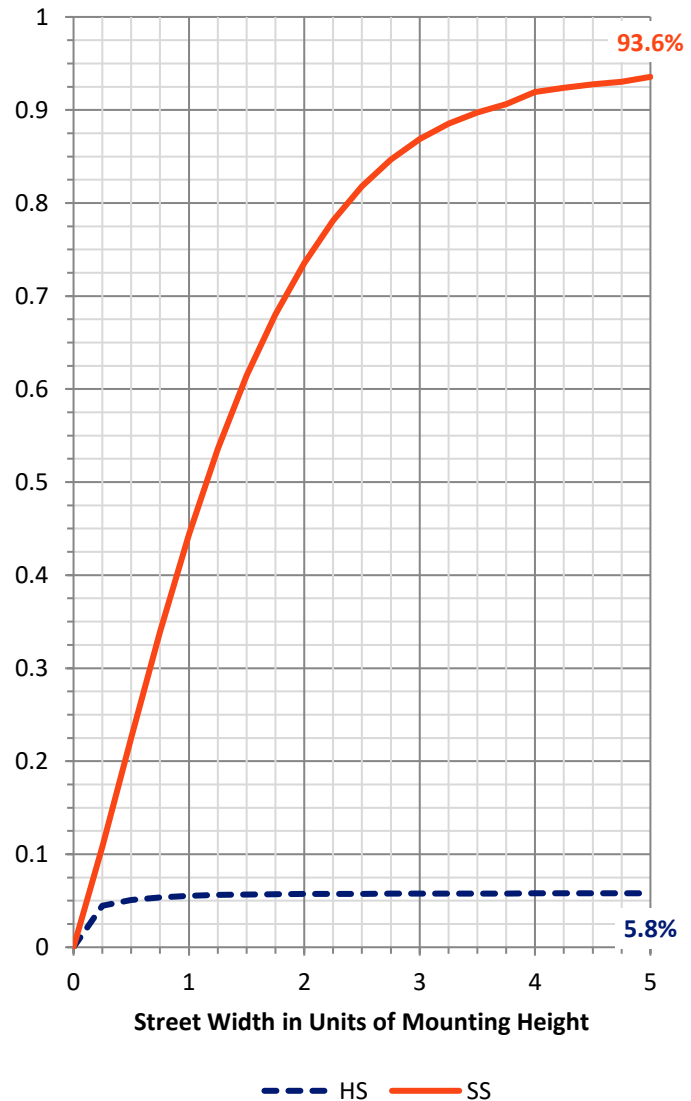
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1878.5	0.0	1878.5
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	30229.4	0.0	30229.4
	% Fixture	94.1	0.0	94.1
Total	Lumens	32107.9	0.0	32107.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	388.9	1.2
10°-20°	956.5	3.0
20°-30°	1611.1	5.0
30°-40°	2637.4	8.2
40°-50°	4566.5	14.2
50°-60°	7192.7	22.4
60°-70°	9393.4	29.3
70°-80°	4838.0	15.1
80°-90°	523.3	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°	32107.9	100.0
0°-180°	32107.9	100.0



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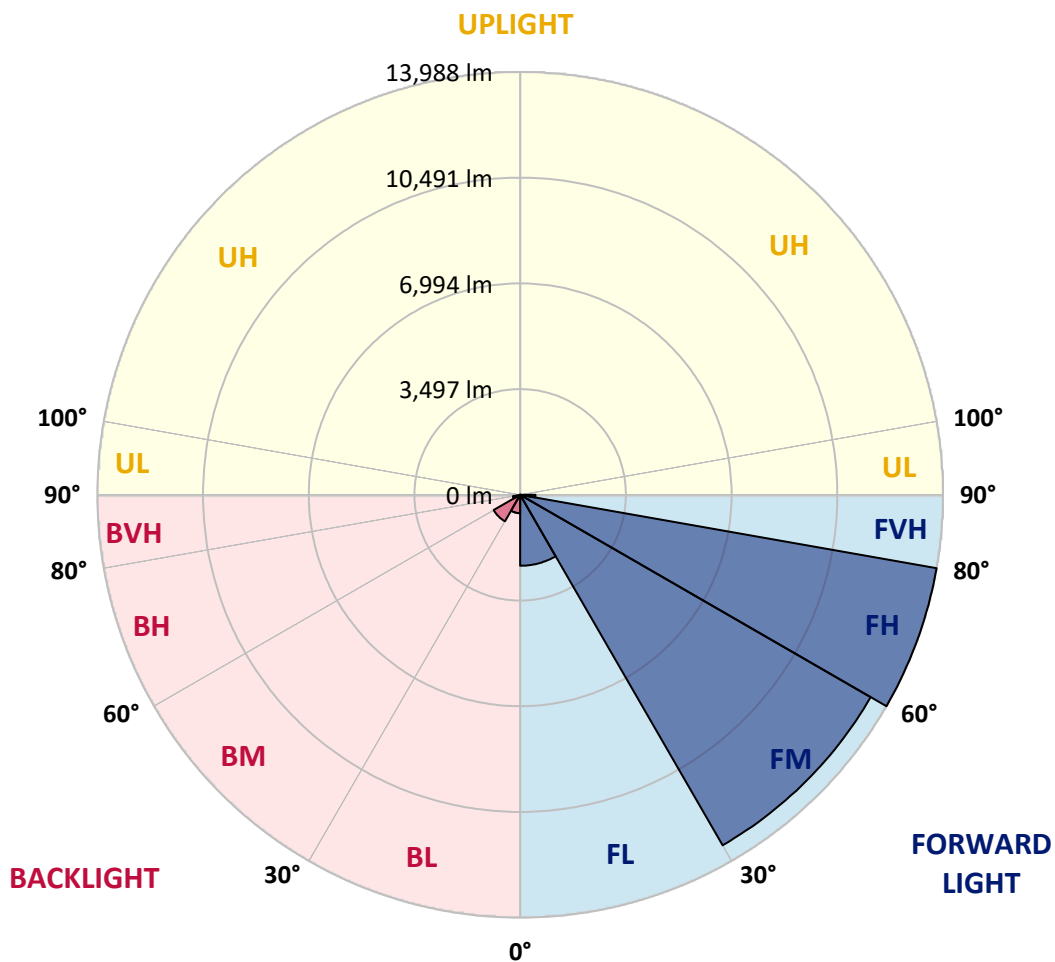
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2348.0	7.3			
FM	(30°-60°)	13387.0	41.7			
FH	(60°-80°)	13987.5	43.6			G5
FVH	(80°-90°)	506.9	1.6			G4/750
BL	(0°-30°)	608.5	1.9	B2/1000		
BM	(30°-60°)	1009.6	3.1	B2/2500		
BH	(60°-80°)	243.9	0.8	B1/500		G1/500
BVH	(80°-90°)	16.4	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°	40°	45°	55°	65°	75°	85°
0°	4797.1	4797.1	4797.1	4797.1	4797.1	4797.1	4797.1	4797.1	4797.1	4797.1	4797.1
2.5°	5267.2	5238.6	5221.4	5198.4	5169.8	5144.9	5135.4	5064.7	4997.8	4906.0	4800.9
5°	5364.7	5355.2	5324.6	5294.0	5259.6	5221.4	5200.3	5116.3	5020.7	4886.9	4703.4
7.5°	5374.3	5362.8	5324.6	5282.5	5234.8	5188.9	5152.6	5068.5	4980.6	4844.9	4621.3
10°	5359.0	5345.6	5316.9	5271.1	5211.8	5167.9	5131.5	5051.3	4976.7	4854.4	4606.0
12.5°	5341.8	5328.4	5315.0	5292.1	5240.5	5209.9	5179.3	5102.9	5036.0	4932.8	4661.4
15°	5359.0	5351.3	5366.6	5357.1	5328.4	5301.6	5271.1	5202.3	5141.1	5055.1	4762.7
17.5°	5431.6	5431.6	5479.4	5485.1	5458.4	5420.1	5376.2	5307.4	5255.8	5183.1	4883.1
20°	5601.7	5596.0	5657.1	5668.6	5603.6	5544.4	5479.4	5395.3	5355.2	5309.3	5001.6
22.5°	5894.1	5867.4	5903.7	5892.2	5764.2	5672.4	5592.1	5488.9	5467.9	5446.9	5133.5
25°	6274.4	6259.1	6284.0	6171.2	5945.7	5821.5	5725.9	5609.3	5609.3	5630.4	5282.5
27.5°	6826.8	6769.4	6685.3	6486.6	6148.3	5989.7	5886.5	5762.2	5794.7	5873.1	5479.4
30°	7392.5	7329.4	7136.4	6830.6	6394.8	6228.6	6108.2	5978.2	6054.7	6198.0	5743.1
32.5°	7950.6	7879.8	7606.5	7220.5	6748.4	6582.1	6465.6	6322.2	6450.3	6691.1	6129.2
35°	8491.4	8428.4	8113.0	7658.1	7218.6	7081.0	6973.9	6849.7	7014.1	7350.4	6673.9
37.5°	9099.2	9030.4	8646.2	8153.1	7790.0	7690.6	7612.3	7488.0	7774.7	8267.8	7432.6
40°	9846.5	9729.9	9211.9	8720.8	8451.3	8403.5	8350.0	8332.8	8778.1	9460.4	8443.6
42.5°	10702.7	10511.5	9804.4	9319.0	9177.5	9211.9	9198.6	9275.0	10033.8	10943.5	9674.4
45°	11558.9	11312.3	10463.8	9957.3	9976.4	10096.8	10171.4	10477.1	11606.7	12644.4	10998.9
47.5°	12285.1	12042.4	11096.4	10647.2	10876.6	11113.6	11316.2	11895.3	13223.5	14318.6	12029.0
50°	12906.3	12676.9	11767.2	11406.0	11922.0	12304.2	12633.0	13491.1	14962.7	15593.4	12751.5
52.5°	13414.6	13261.8	12462.9	12275.6	13116.5	13676.5	14158.1	15186.3	16503.1	16629.3	13313.4
55°	13909.6	13800.7	13210.1	13309.5	14519.3	15281.9	15891.6	16984.8	17829.5	17493.1	13852.3
57.5°	14479.2	14379.8	14062.5	14620.6	16363.6	17323.0	17988.1	18578.7	18997.2	18376.1	14360.7
60°	15060.2	15002.8	15010.5	16076.9	18481.2	19402.4	19769.4	19922.3	20143.9	19207.5	14389.4
62.5°	15614.4	15723.4	16094.1	17697.6	20509.0	21216.1	21401.5	21552.5	21292.6	19339.3	13294.2
65°	16552.8	16730.6	17615.4	19866.8	22739.3	23496.2	23687.3	23169.4	21474.1	17634.6	10813.5
67.5°	17011.5	17336.4	18915.1	21888.9	24902.8	25743.7	25673.0	23274.5	19270.5	13447.1	6939.5
69°	16915.9	17261.9	19215.1	22508.1	25621.4	26384.0	25934.9	21988.2	16417.1	9741.3	4260.0
70°	16537.5	16887.3	19060.3	22485.2	25713.2	26317.1	25449.4	20400.0	13881.0	7123.0	2664.2
72.5°	13810.3	14112.2	16921.7	20323.6	23687.3	23196.1	21290.7	14133.3	6763.7	1939.9	600.1
75°	8501.0	8669.2	12141.8	15310.5	17890.7	16629.3	14184.9	7031.3	2016.3	548.5	332.5
77.5°	4491.3	4567.7	6647.1	9024.6	11341.0	9383.9	7270.2	2742.6	928.8	344.0	240.8
80°	2654.6	2712.0	3579.7	4126.3	4907.9	4099.5	2906.9	1683.8	665.1	216.0	214.1
82.5°	1519.4	1555.7	2595.4	2293.4	1934.1	1651.3	1446.8	1595.8	399.4	145.3	221.7
85°	558.1	565.7	1460.1	1744.9	1150.5	684.2	718.6	1322.5	107.0	91.7	173.9
87.5°	259.9	254.2	751.1	1068.4	672.7	433.8	560.0	290.5	42.0	59.2	47.8
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°	4797.1	4797.1	4797.1	4797.1	4797.1	4797.1	4797.1	4797.1	4797.1	4797.1	4797.1
2.5°	4739.8	4669.0	4541.0	4409.1	4275.3	4172.1	4070.8	3990.6	3963.8	3914.1	3917.9
5°	4594.5	4464.5	4197.0	3925.6	3642.7	3409.6	3189.8	3012.0	2926.0	2838.1	2838.1
7.5°	4468.4	4279.2	3860.6	3419.1	2962.3	2578.2	2232.3	1972.3	1829.0	1714.3	1712.4
10°	4420.6	4164.5	3579.7	2947.1	2310.6	1787.0	1376.1	1112.3	976.6	888.7	884.9
12.5°	4441.6	4124.3	3363.7	2511.3	1712.4	1148.6	797.0	626.9	569.5	542.8	542.8
15°	4502.8	4112.9	3147.7	2085.1	1209.8	718.6	529.4	483.5	479.7	479.7	479.7
17.5°	4577.3	4116.7	2926.0	1670.4	823.7	514.1	456.8	451.0	454.9	454.9	454.9
20°	4653.7	4118.6	2687.1	1286.2	581.0	447.2	430.0	428.1	431.9	431.9	433.8
22.5°	4747.4	4128.2	2448.2	961.3	479.7	422.4	409.0	409.0	410.9	410.9	409.0
25°	4854.4	4147.3	2199.8	712.9	437.7	405.2	393.7	391.8	393.7	391.8	389.9
27.5°	4988.2	4174.0	1922.7	558.1	418.6	388.0	378.4	378.4	376.5	374.6	372.7
30°	5156.4	4204.6	1611.1	474.0	399.4	372.7	363.1	361.2	359.3	355.5	355.5
32.5°	5412.5	4271.5	1303.4	430.0	378.4	351.7	344.0	344.0	340.2	336.4	334.5
35°	5806.2	4403.4	1028.2	403.3	355.5	328.7	319.2	319.2	315.3	313.4	311.5
37.5°	6350.9	4604.1	798.9	378.4	332.5	303.9	294.3	292.4	288.6	284.8	282.9
40°	7075.2	4852.5	628.8	355.5	309.6	279.0	271.4	267.6	259.9	254.2	254.2
42.5°	7985.0	5135.4	510.3	330.6	282.9	256.1	250.4	244.6	231.3	225.5	223.6
45°	8936.7	5389.6	431.9	302.0	256.1	233.2	229.3	219.8	202.6	196.9	196.9
47.5°	9622.8	5448.8	380.3	275.2	231.3	208.3	206.4	189.2	173.9	170.1	168.2
50°	10051.0	5332.2	338.3	248.5	208.3	185.4	179.7	158.6	149.1	145.3	143.3
52.5°	10339.5	5123.9	303.9	225.5	187.3	164.4	151.0	135.7	128.0	124.2	124.2
55°	10570.8	4829.6	269.5	204.5	170.1	147.2	128.0	116.6	108.9	105.1	105.1
57.5°	10635.8	4430.1	235.1	187.3	152.9	130.0	108.9	101.3	91.7	89.8	89.8
60°	10163.7	3709.6	208.3	166.3	137.6	112.8	95.6	86.0	76.4	74.5	72.6
62.5°	8919.5	2870.6	183.5	147.2	120.4	97.5	82.2	70.7	63.1	63.1	63.1
65°	6803.8	1924.6	160.5	128.0	105.1	82.2	70.7	57.3	53.5	53.5	55.4
67.5°	4072.7	1047.3	137.6	108.9	89.8	68.8	59.2	49.7	47.8	49.7	49.7
69°	2387.1	615.4	124.2	97.5	78.4	61.2	51.6	44.0	47.8	49.7	49.7
70°	1473.5	414.7	114.7	87.9	70.7	55.4	47.8	42.0	45.9	47.8	47.8
72.5°	410.9	214.1	91.7	68.8	57.3	45.9	38.2	38.2	44.0	45.9	45.9
75°	267.6	158.6	70.7	51.6	44.0	36.3	32.5	36.3	42.0	44.0	44.0
77.5°	221.7	130.0	57.3	42.0	36.3	34.4	30.6	32.5	38.2	40.1	40.1
80°	202.6	91.7	45.9	38.2	32.5	30.6	28.7	26.8	34.4	36.3	36.3
82.5°	193.0	72.6	40.1	34.4	30.6	26.8	24.8	26.8	30.6	32.5	34.4
85°	120.4	47.8	36.3	32.5	26.8	24.8	24.8	24.8	28.7	30.6	30.6
87.5°	44.0	38.2	32.5	26.8	22.9	22.9	22.9	22.9	24.8	28.7	28.7
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)