

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: P301002

Luminaire Tested: **GLNA-AF-08-LED-E1-SL4-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301002
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-08-LED-E1-SL4-7027-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K 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: 25854.1 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

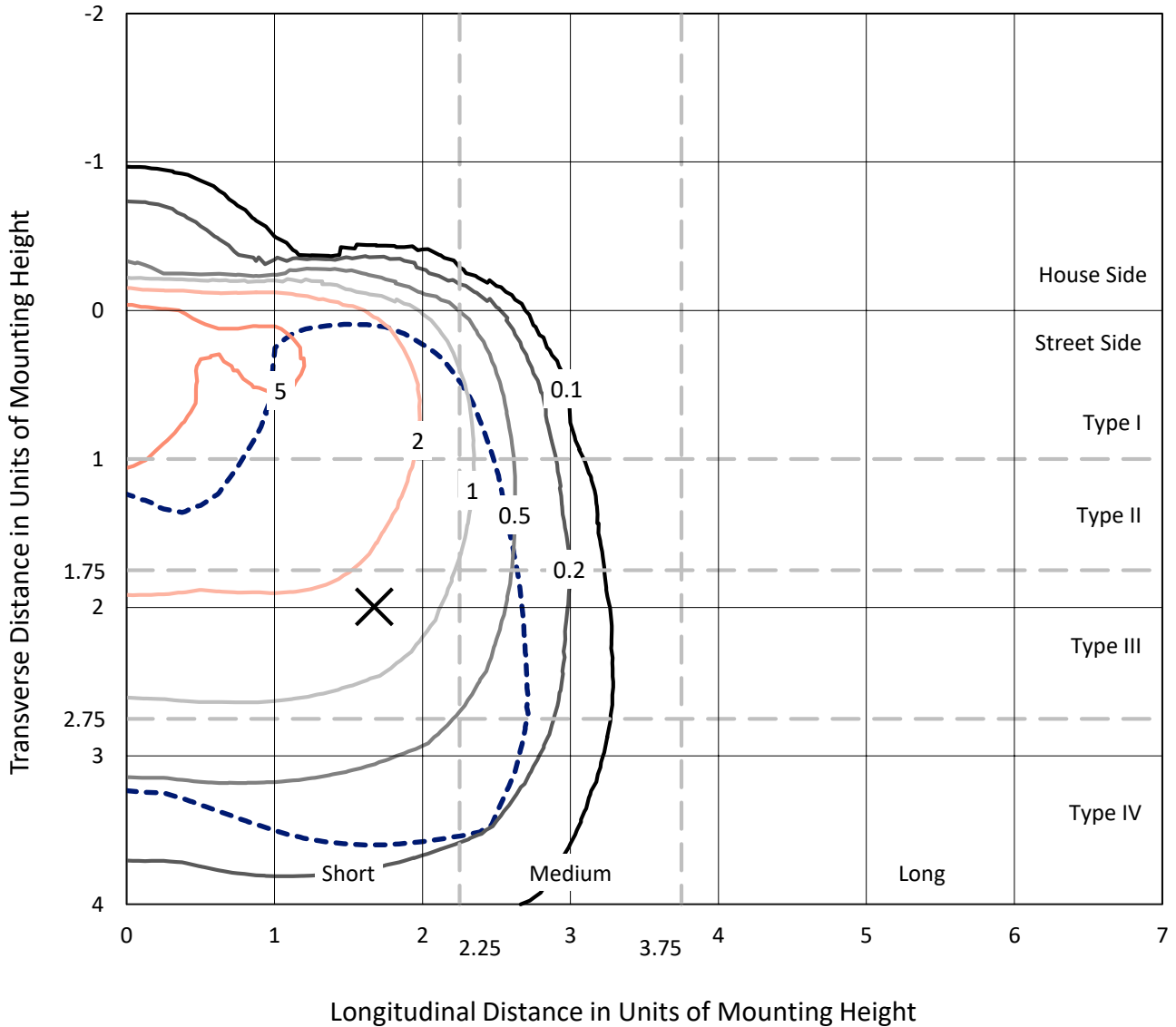
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

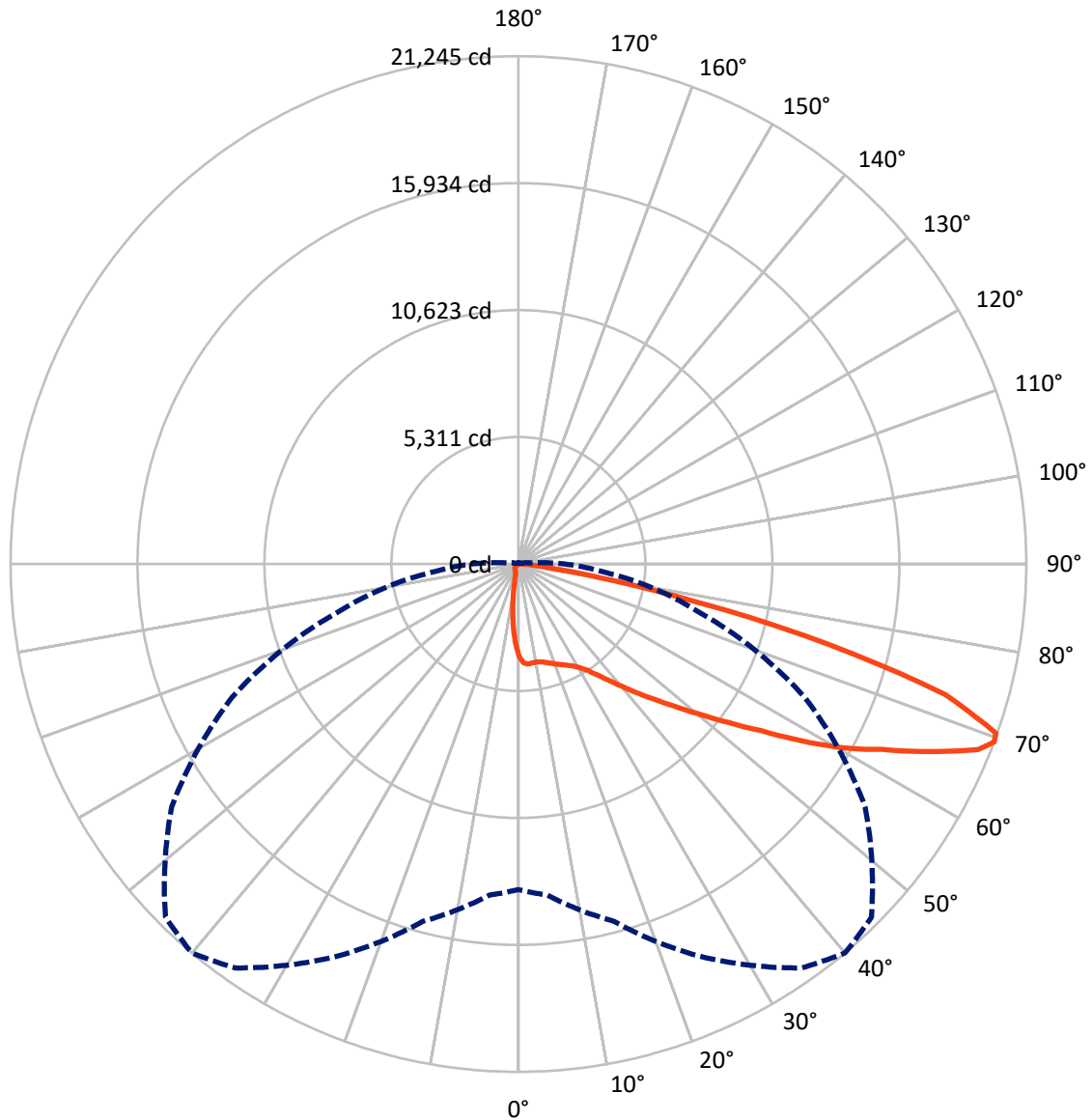
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 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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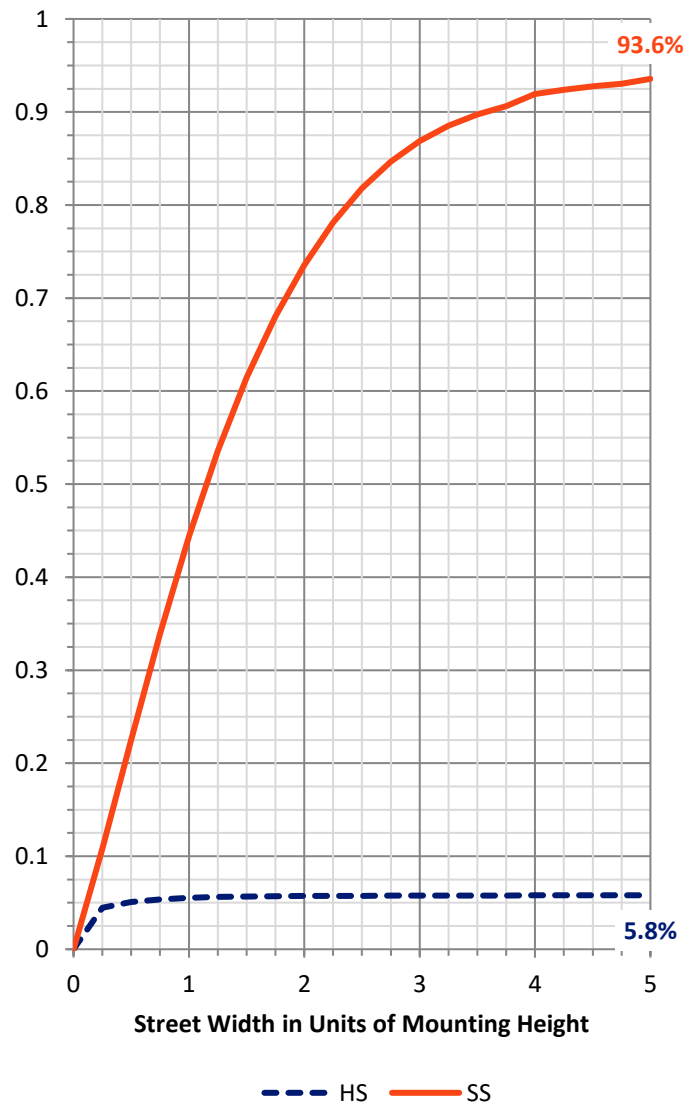
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1512.6	0.0	1512.6
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	24341.5	0.0	24341.5
	% Fixture	94.1	0.0	94.1
Total	Lumens	25854.1	0.0	25854.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	313.2	1.2
10°-20°	770.2	3.0
20°-30°	1297.3	5.0
30°-40°	2123.7	8.2
40°-50°	3677.1	14.2
50°-60°	5791.8	22.4
60°-70°	7563.8	29.3
70°-80°	3895.7	15.1
80°-90°	421.4	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°	25854.1	100.0
0°-180°	25854.1	100.0

Coefficient of Utilization



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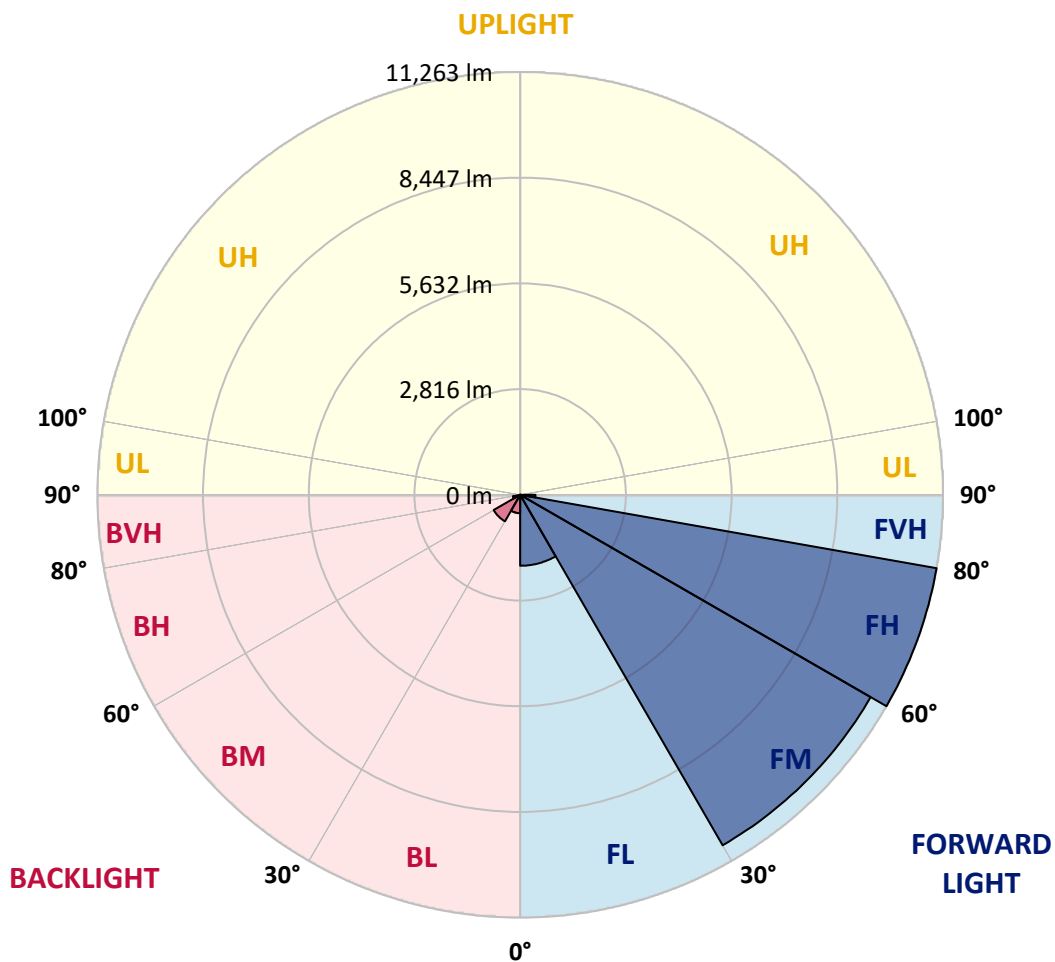
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1890.7	7.3			
FM	(30°-60°)	10779.6	41.7			
FH	(60°-80°)	11263.1	43.6			G4/12000
FVH	(80°-90°)	408.2	1.6			G3/500
BL	(0°-30°)	490.0	1.9	B1/500		
BM	(30°-60°)	813.0	3.1	B1/1000		
BH	(60°-80°)	196.4	0.8	B1/500		G1/500
BVH	(80°-90°)	13.2	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3862.7	3862.7	3862.7	3862.7	3862.7	3862.7	3862.7	3862.7	3862.7	3862.7	3862.7
2.5°	4241.3	4218.2	4204.4	4185.9	4162.8	4142.8	4135.1	4078.2	4024.3	3950.5	3865.8
5°	4319.8	4312.1	4287.5	4262.9	4235.2	4204.4	4187.5	4119.7	4042.8	3935.1	3787.3
7.5°	4327.5	4318.3	4287.5	4253.6	4215.2	4178.2	4149.0	4081.3	4010.5	3901.2	3721.2
10°	4315.2	4304.4	4281.3	4244.4	4196.7	4161.3	4132.1	4067.4	4007.4	3908.9	3708.8
12.5°	4301.3	4290.6	4279.8	4261.3	4219.8	4195.2	4170.5	4109.0	4055.1	3972.0	3753.5
15°	4315.2	4309.0	4321.3	4313.7	4290.6	4269.0	4244.4	4189.0	4139.8	4070.5	3835.0
17.5°	4373.7	4373.7	4412.1	4416.8	4395.2	4364.4	4329.0	4273.6	4232.1	4173.6	3932.0
20°	4510.6	4506.0	4555.3	4564.5	4512.2	4464.5	4412.1	4344.4	4312.1	4275.2	4027.4
22.5°	4746.1	4724.5	4753.8	4744.6	4641.4	4567.6	4502.9	4419.8	4402.9	4386.0	4133.6
25°	5052.3	5040.0	5060.0	4969.2	4787.6	4687.6	4610.7	4516.8	4516.8	4533.7	4253.6
27.5°	5497.1	5450.9	5383.2	5223.2	4950.8	4823.0	4739.9	4639.9	4666.1	4729.2	4412.1
30°	5952.6	5901.8	5746.4	5500.2	5149.3	5015.4	4918.5	4813.8	4875.4	4990.8	4624.5
32.5°	6402.0	6345.1	6125.0	5814.1	5434.0	5300.1	5206.2	5090.8	5193.9	5387.8	4935.4
35°	6837.5	6786.7	6532.8	6166.5	5812.6	5701.8	5615.6	5515.6	5647.9	5918.8	5374.0
37.5°	7326.9	7271.5	6962.2	6565.1	6272.7	6192.7	6129.6	6029.6	6260.4	6657.5	5984.9
40°	7928.6	7834.7	7417.7	7022.2	6805.2	6766.7	6723.6	6709.8	7068.4	7617.8	6799.0
42.5°	8618.1	8464.2	7894.8	7503.9	7390.0	7417.7	7406.9	7468.5	8079.4	8812.0	7790.1
45°	9307.5	9109.0	8425.7	8017.9	8033.3	8130.2	8190.2	8436.5	9346.0	10181.6	8856.6
47.5°	9892.3	9696.9	8935.1	8573.4	8758.1	8948.9	9112.1	9578.4	10647.9	11529.7	9686.1
50°	10392.5	10207.8	9475.3	9184.4	9599.9	9907.7	10172.4	10863.4	12048.4	12556.2	10267.8
52.5°	10801.8	10678.7	10035.4	9884.6	10561.7	11012.7	11400.5	12228.4	13288.8	13390.3	10720.3
55°	11200.4	11112.7	10637.2	10717.2	11691.3	12305.4	12796.3	13676.6	14356.8	14085.9	11154.2
57.5°	11659.0	11579.0	11323.5	11772.9	13176.4	13949.0	14484.5	14960.0	15297.1	14796.9	11563.6
60°	12126.9	12080.7	12086.8	12945.6	14881.6	15623.3	15918.8	16041.9	16220.4	15466.4	11586.7
62.5°	12573.1	12660.9	12959.4	14250.6	16514.4	17083.8	17233.1	17354.6	17145.3	15572.5	10704.9
65°	13328.8	13471.9	14184.4	15997.3	18310.3	18919.7	19073.6	18656.6	17291.5	14199.8	8707.3
67.5°	13698.1	13959.7	15230.9	17625.5	20052.4	20729.5	20672.6	18741.2	15517.1	10828.0	5587.9
69°	13621.2	13899.7	15472.5	18124.1	20631.0	21245.1	20883.4	17705.5	13219.5	7844.0	3430.3
70°	13316.5	13598.1	15347.9	18105.6	20704.9	21191.2	20492.5	16426.7	11177.3	5735.6	2145.3
72.5°	11120.4	11363.5	13625.8	16365.1	19073.6	18678.1	17143.8	11380.5	5446.3	1562.0	483.2
75°	6845.2	6980.6	9776.9	12328.5	14406.0	13390.3	11422.0	5661.8	1623.6	441.7	267.8
77.5°	3616.5	3678.1	5352.4	7266.9	9132.1	7556.2	5854.1	2208.4	747.9	277.0	193.9
80°	2137.6	2183.8	2882.4	3322.6	3952.0	3301.0	2340.7	1355.8	535.6	173.9	172.4
82.5°	1223.5	1252.7	2089.9	1846.7	1557.4	1329.6	1165.0	1285.0	321.6	117.0	178.5
85°	449.4	455.5	1175.8	1405.1	926.4	550.9	578.6	1064.9	86.2	73.9	140.0
87.5°	209.3	204.7	604.8	860.3	541.7	349.3	450.9	233.9	33.9	47.7	38.5
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°	3862.7	3862.7	3862.7	3862.7	3862.7	3862.7	3862.7	3862.7	3862.7	3862.7	3862.7
2.5°	3816.6	3759.6	3656.5	3550.3	3442.6	3359.5	3277.9	3213.3	3191.8	3151.8	3154.8
5°	3699.6	3595.0	3379.5	3161.0	2933.2	2745.5	2568.5	2425.4	2356.1	2285.3	2285.3
7.5°	3598.0	3445.7	3108.7	2753.2	2385.4	2076.0	1797.5	1588.2	1472.8	1380.4	1378.9
10°	3559.6	3353.4	2882.4	2373.0	1860.6	1438.9	1108.0	895.7	786.4	715.6	712.5
12.5°	3576.5	3321.0	2708.5	2022.2	1378.9	924.9	641.7	504.8	458.6	437.1	437.1
15°	3625.7	3311.8	2534.6	1679.0	974.1	578.6	426.3	389.4	386.3	386.3	386.3
17.5°	3685.8	3314.9	2356.1	1345.0	663.3	414.0	367.8	363.2	366.3	366.3	366.3
20°	3747.3	3316.4	2163.8	1035.7	467.8	360.1	346.3	344.7	347.8	347.8	349.3
22.5°	3822.7	3324.1	1971.4	774.1	386.3	340.1	329.3	329.3	330.9	330.9	329.3
25°	3908.9	3339.5	1771.3	574.0	352.4	326.3	317.0	315.5	317.0	315.5	313.9
27.5°	4016.6	3361.0	1548.2	449.4	337.0	312.4	304.7	304.7	303.2	301.6	300.1
30°	4152.1	3385.7	1297.3	381.7	321.6	300.1	292.4	290.9	289.3	286.2	286.2
32.5°	4358.3	3439.5	1049.6	346.3	304.7	283.2	277.0	277.0	273.9	270.9	269.3
35°	4675.3	3545.7	828.0	324.7	286.2	264.7	257.0	257.0	253.9	252.4	250.8
37.5°	5113.9	3707.3	643.3	304.7	267.8	244.7	237.0	235.5	232.4	229.3	227.8
40°	5697.2	3907.4	506.3	286.2	249.3	224.7	218.5	215.5	209.3	204.7	204.7
42.5°	6429.7	4135.1	410.9	266.2	227.8	206.2	201.6	197.0	186.2	181.6	180.1
45°	7196.1	4339.8	347.8	243.2	206.2	187.8	184.7	177.0	163.1	158.5	158.5
47.5°	7748.6	4387.5	306.2	221.6	186.2	167.7	166.2	152.4	140.0	137.0	135.4
50°	8093.3	4293.6	272.4	200.1	167.7	149.3	144.7	127.7	120.0	117.0	115.4
52.5°	8325.7	4125.9	244.7	181.6	150.8	132.3	121.6	109.3	103.1	100.0	100.0
55°	8511.9	3888.9	217.0	164.7	137.0	118.5	103.1	93.9	87.7	84.6	84.6
57.5°	8564.2	3567.3	189.3	150.8	123.1	104.6	87.7	81.6	73.9	72.3	72.3
60°	8184.1	2987.1	167.7	133.9	110.8	90.8	76.9	69.3	61.6	60.0	58.5
62.5°	7182.2	2311.5	147.7	118.5	97.0	78.5	66.2	56.9	50.8	50.8	50.8
65°	5478.6	1549.7	129.3	103.1	84.6	66.2	56.9	46.2	43.1	43.1	44.6
67.5°	3279.5	843.3	110.8	87.7	72.3	55.4	47.7	40.0	38.5	40.0	40.0
69°	1922.1	495.5	100.0	78.5	63.1	49.2	41.6	35.4	38.5	40.0	40.0
70°	1186.5	334.0	92.3	70.8	56.9	44.6	38.5	33.9	36.9	38.5	38.5
72.5°	330.9	172.4	73.9	55.4	46.2	36.9	30.8	30.8	35.4	36.9	36.9
75°	215.5	127.7	56.9	41.6	35.4	29.2	26.2	29.2	33.9	35.4	35.4
77.5°	178.5	104.6	46.2	33.9	29.2	27.7	24.6	26.2	30.8	32.3	32.3
80°	163.1	73.9	36.9	30.8	26.2	24.6	23.1	21.5	27.7	29.2	29.2
82.5°	155.4	58.5	32.3	27.7	24.6	21.5	20.0	21.5	24.6	26.2	27.7
85°	97.0	38.5	29.2	26.2	21.5	20.0	20.0	20.0	23.1	24.6	24.6
87.5°	35.4	30.8	26.2	21.5	18.5	18.5	18.5	18.5	20.0	23.1	23.1
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)