

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: P301813

Luminaire Tested: **GLNA-AF-03-LED-E1-SL4-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301813
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-03-LED-E1-SL4-7030-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 3000K CCT 1050mA 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: 12962.1 lumens
Efficiency: N/A
Efficacy: 78.1 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

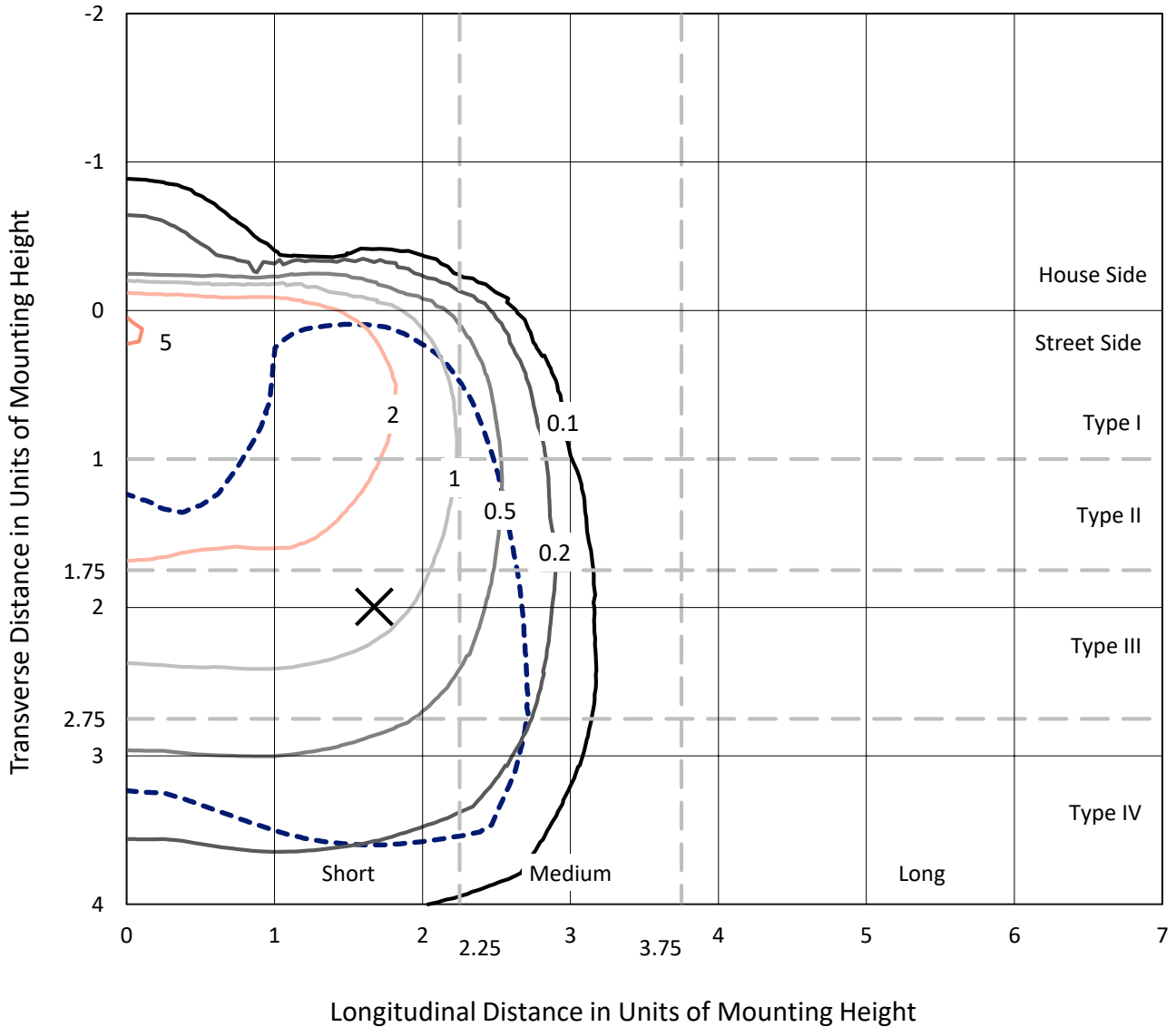
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

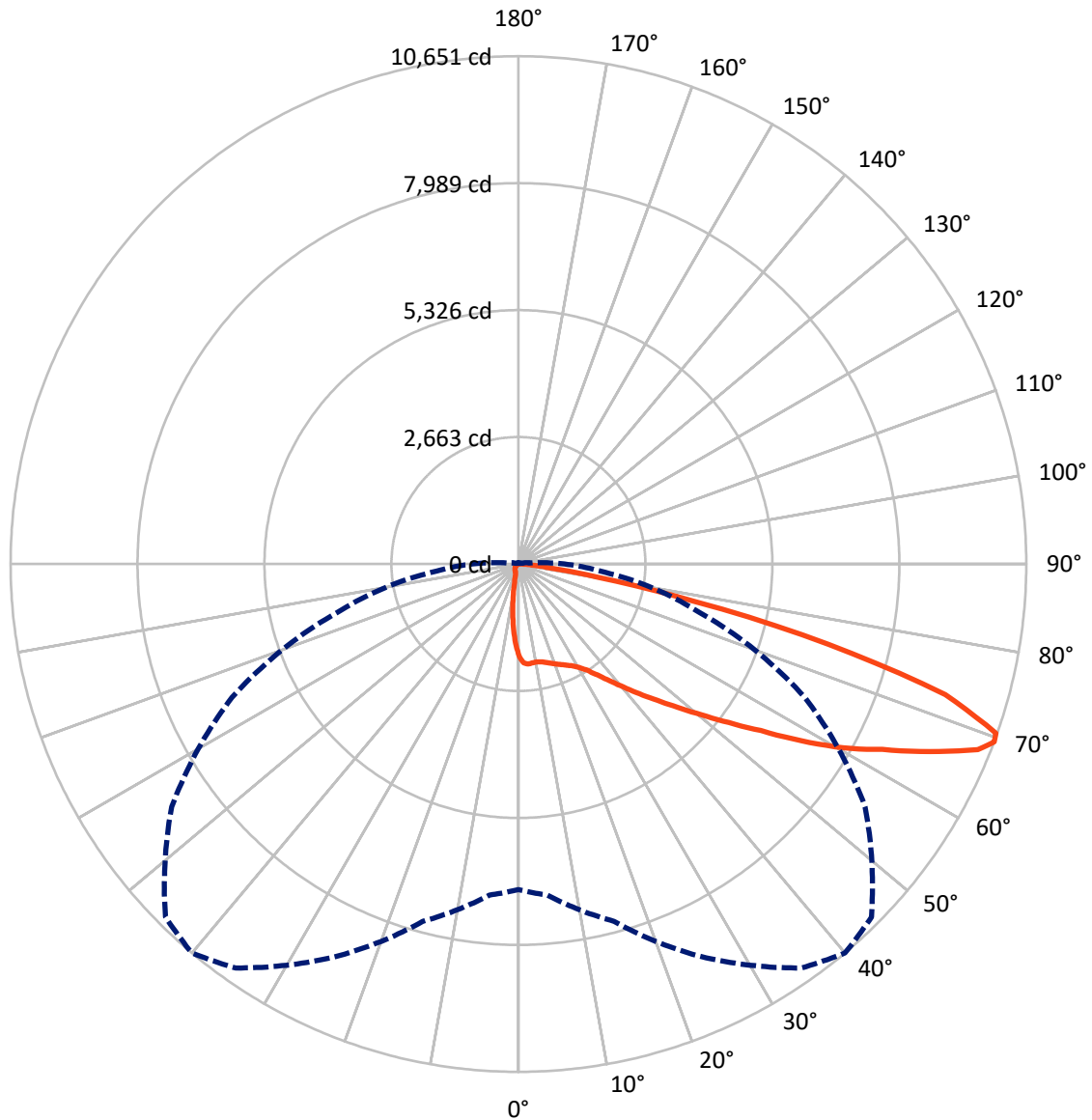
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.3 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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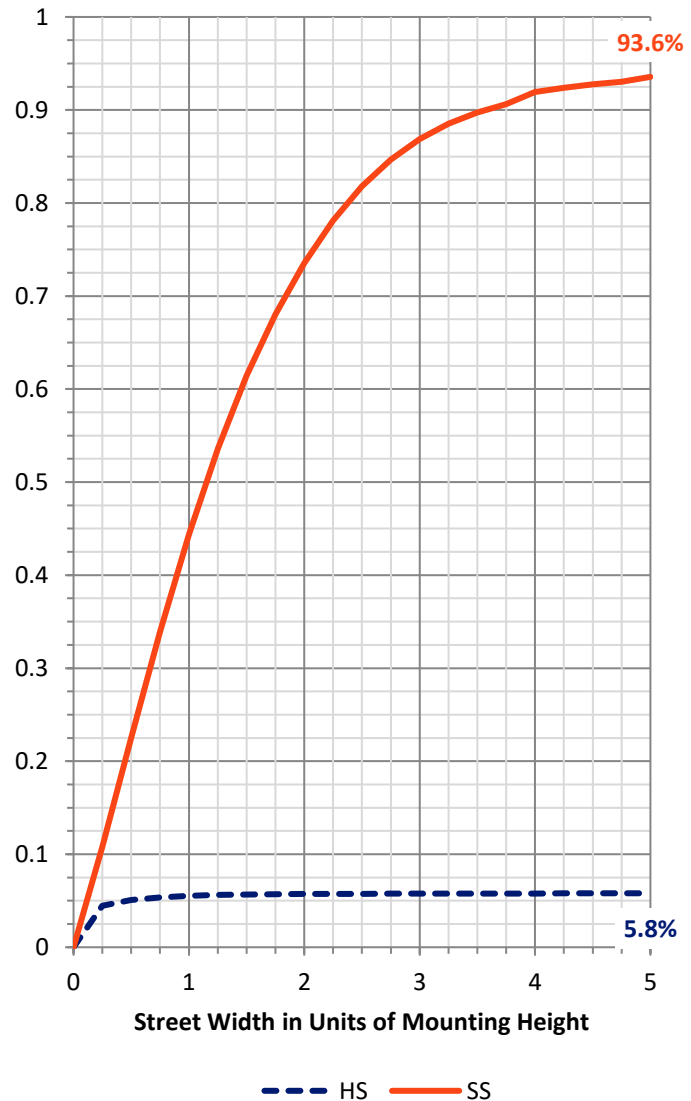
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	758.4	0.0	758.4
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	12203.8	0.0	12203.8
	% Fixture	94.1	0.0	94.1
Total	Lumens	12962.1	0.0	12962.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.0	1.2
10°-20°	386.1	3.0
20°-30°	650.4	5.0
30°-40°	1064.7	8.2
40°-50°	1843.5	14.2
50°-60°	2903.7	22.4
60°-70°	3792.2	29.3
70°-80°	1953.1	15.1
80°-90°	211.3	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°	12962.1	100.0
0°-180°	12962.1	100.0

Coefficient of Utilization



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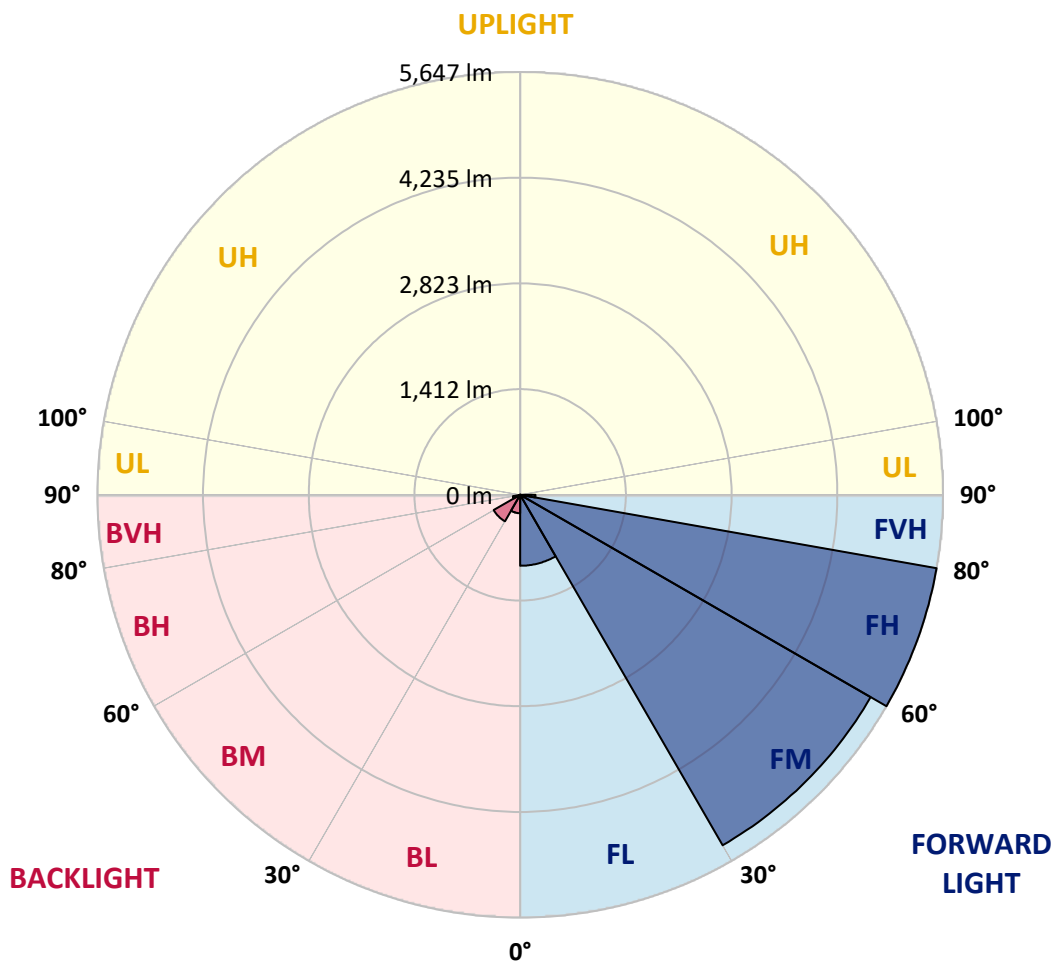
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	947.9	7.3			
FM	(30°-60°)	5404.4	41.7			
FH	(60°-80°)	5646.8	43.6			G3/7500
FVH	(80°-90°)	204.6	1.6			G2/225
BL	(0°-30°)	245.7	1.9	B1/500		
BM	(30°-60°)	407.6	3.1	B1/1000		
BH	(60°-80°)	98.5	0.8	B0/110		G0/110
BVH	(80°-90°)	6.6	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°	1936.6	1936.6	1936.6	1936.6	1936.6	1936.6	1936.6	1936.6	1936.6	1936.6	1936.6
2.5°	2126.4	2114.8	2107.9	2098.6	2087.1	2077.0	2073.2	2044.6	2017.6	1980.6	1938.2
5°	2165.8	2161.9	2149.6	2137.2	2123.3	2107.9	2099.4	2065.5	2026.9	1972.9	1898.8
7.5°	2169.6	2165.0	2149.6	2132.6	2113.3	2094.8	2080.1	2046.2	2010.7	1955.9	1865.6
10°	2163.4	2158.0	2146.5	2128.0	2104.0	2086.3	2071.6	2039.2	2009.1	1959.8	1859.5
12.5°	2156.5	2151.1	2145.7	2136.4	2115.6	2103.3	2090.9	2060.1	2033.1	1991.4	1881.8
15°	2163.4	2160.4	2166.5	2162.7	2151.1	2140.3	2128.0	2100.2	2075.5	2040.8	1922.7
17.5°	2192.8	2192.8	2212.1	2214.4	2203.6	2188.1	2170.4	2142.6	2121.8	2092.5	1971.3
20°	2261.4	2259.1	2283.8	2288.4	2262.2	2238.3	2212.1	2178.1	2161.9	2143.4	2019.2
22.5°	2379.5	2368.7	2383.3	2378.7	2327.0	2290.0	2257.6	2215.9	2207.4	2198.9	2072.4
25°	2533.0	2526.9	2536.9	2491.4	2400.3	2350.2	2311.6	2264.5	2264.5	2273.0	2132.6
27.5°	2756.0	2732.9	2698.9	2618.7	2482.1	2418.1	2376.4	2326.2	2339.4	2371.0	2212.1
30°	2984.4	2958.9	2881.0	2757.5	2581.6	2514.5	2465.9	2413.4	2444.3	2502.2	2318.5
32.5°	3209.7	3181.1	3070.8	2914.9	2724.4	2657.2	2610.2	2552.3	2604.0	2701.2	2474.4
35°	3428.0	3402.6	3275.3	3091.6	2914.2	2858.6	2815.4	2765.3	2831.6	2967.4	2694.3
37.5°	3673.4	3645.6	3490.5	3291.5	3144.9	3104.8	3073.1	3023.0	3138.7	3337.8	3000.6
40°	3975.1	3928.0	3718.9	3520.6	3411.8	3392.5	3370.9	3364.0	3543.8	3819.2	3408.7
42.5°	4320.7	4243.6	3958.1	3762.1	3705.0	3718.9	3713.5	3744.4	4050.7	4417.9	3905.6
45°	4666.4	4566.9	4224.3	4019.8	4027.5	4076.1	4106.2	4229.7	4685.7	5104.6	4440.3
47.5°	4959.6	4861.6	4479.7	4298.4	4390.9	4486.6	4568.4	4802.2	5338.4	5780.5	4856.2
50°	5210.3	5117.7	4750.5	4604.7	4813.0	4967.3	5100.0	5446.4	6040.5	6295.1	5147.8
52.5°	5415.6	5353.8	5031.3	4955.7	5295.2	5521.3	5715.7	6130.8	6662.4	6713.3	5374.7
55°	5615.4	5571.4	5333.0	5373.1	5861.5	6169.4	6415.5	6856.8	7197.9	7062.1	5592.3
57.5°	5845.3	5805.2	5677.1	5902.4	6606.1	6993.4	7261.9	7500.3	7669.3	7418.5	5797.5
60°	6079.9	6056.7	6059.8	6490.3	7461.0	7832.9	7981.0	8042.7	8132.2	7754.2	5809.1
62.5°	6303.6	6347.6	6497.3	7144.6	8279.6	8565.1	8639.9	8700.9	8595.9	7807.4	5367.0
65°	6682.5	6754.2	7111.5	8020.3	9180.0	9485.5	9562.7	9353.6	8669.2	7119.2	4365.5
67.5°	6867.6	6998.8	7636.1	8836.7	10053.4	10392.9	10364.3	9396.0	7779.6	5428.7	2801.5
69°	6829.1	6968.7	7757.2	9086.6	10343.5	10651.4	10470.0	8876.8	6627.7	3932.6	1719.8
70°	6676.3	6817.5	7694.8	9077.4	10380.5	10624.4	10274.1	8235.6	5603.8	2875.6	1075.6
72.5°	5575.3	5697.2	6831.4	8204.8	9562.7	9364.4	8595.2	5705.7	2730.5	783.1	242.3
75°	3431.9	3499.8	4901.7	6181.0	7222.6	6713.3	5726.5	2838.6	814.0	221.4	134.3
77.5°	1813.2	1844.0	2683.5	3643.3	4578.4	3788.4	2935.0	1107.2	375.0	138.9	97.2
80°	1071.7	1094.8	1445.1	1665.8	1981.4	1655.0	1173.5	679.7	268.5	87.2	86.4
82.5°	613.4	628.0	1047.8	925.9	780.8	666.6	584.1	644.3	161.3	58.6	89.5
85°	225.3	228.4	589.5	704.4	464.5	276.2	290.1	533.9	43.2	37.0	70.2
87.5°	104.9	102.6	303.2	431.3	271.6	175.1	226.1	117.3	17.0	23.9	19.3
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°	1936.6	1936.6	1936.6	1936.6	1936.6	1936.6	1936.6	1936.6	1936.6	1936.6	1936.6
2.5°	1913.5	1884.9	1833.2	1780.0	1726.0	1684.3	1643.4	1611.0	1600.2	1580.2	1581.7
5°	1854.8	1802.4	1694.3	1584.8	1470.6	1376.5	1287.7	1216.0	1181.3	1145.8	1145.8
7.5°	1803.9	1727.5	1558.5	1380.3	1195.9	1040.8	901.2	796.2	738.4	692.1	691.3
10°	1784.6	1681.2	1445.1	1189.7	932.8	721.4	555.5	449.0	394.3	358.8	357.2
12.5°	1793.1	1665.0	1357.9	1013.8	691.3	463.7	321.7	253.1	229.9	219.1	219.1
15°	1817.8	1660.4	1270.8	841.8	488.4	290.1	213.7	195.2	193.7	193.7	193.7
17.5°	1847.9	1661.9	1181.3	674.3	332.5	207.5	184.4	182.1	183.6	183.6	183.6
20°	1878.7	1662.7	1084.8	519.3	234.6	180.5	173.6	172.8	174.4	174.4	175.1
22.5°	1916.6	1666.6	988.4	388.1	193.7	170.5	165.1	165.1	165.9	165.9	165.1
25°	1959.8	1674.3	888.1	287.8	176.7	163.6	158.9	158.2	158.9	158.2	157.4
27.5°	2013.8	1685.1	776.2	225.3	169.0	156.6	152.8	152.8	152.0	151.2	150.5
30°	2081.7	1697.4	650.4	191.3	161.3	150.5	146.6	145.8	145.1	143.5	143.5
32.5°	2185.1	1724.4	526.2	173.6	152.8	142.0	138.9	138.9	137.3	135.8	135.0
35°	2344.0	1777.7	415.1	162.8	143.5	132.7	128.9	128.9	127.3	126.5	125.8
37.5°	2563.9	1858.7	322.5	152.8	134.3	122.7	118.8	118.0	116.5	115.0	114.2
40°	2856.3	1959.0	253.8	143.5	125.0	112.6	109.6	108.0	104.9	102.6	102.6
42.5°	3223.6	2073.2	206.0	133.5	114.2	103.4	101.1	98.8	93.4	91.0	90.3
45°	3607.8	2175.8	174.4	121.9	103.4	94.1	92.6	88.7	81.8	79.5	79.5
47.5°	3884.8	2199.7	153.5	111.1	93.4	84.1	83.3	76.4	70.2	68.7	67.9
50°	4057.6	2152.6	136.6	100.3	84.1	74.8	72.5	64.0	60.2	58.6	57.9
52.5°	4174.1	2068.5	122.7	91.0	75.6	66.4	61.0	54.8	51.7	50.2	50.2
55°	4267.5	1949.7	108.8	82.6	68.7	59.4	51.7	47.1	44.0	42.4	42.4
57.5°	4293.7	1788.5	94.9	75.6	61.7	52.5	44.0	40.9	37.0	36.3	36.3
60°	4103.1	1497.6	84.1	67.1	55.6	45.5	38.6	34.7	30.9	30.1	29.3
62.5°	3600.9	1158.9	74.1	59.4	48.6	39.3	33.2	28.5	25.5	25.5	25.5
65°	2746.7	777.0	64.8	51.7	42.4	33.2	28.5	23.1	21.6	21.6	22.4
67.5°	1644.2	422.8	55.6	44.0	36.3	27.8	23.9	20.1	19.3	20.1	20.1
69°	963.7	248.4	50.2	39.3	31.6	24.7	20.8	17.7	19.3	20.1	20.1
70°	594.9	167.4	46.3	35.5	28.5	22.4	19.3	17.0	18.5	19.3	19.3
72.5°	165.9	86.4	37.0	27.8	23.1	18.5	15.4	15.4	17.7	18.5	18.5
75°	108.0	64.0	28.5	20.8	17.7	14.7	13.1	14.7	17.0	17.7	17.7
77.5°	89.5	52.5	23.1	17.0	14.7	13.9	12.3	13.1	15.4	16.2	16.2
80°	81.8	37.0	18.5	15.4	13.1	12.3	11.6	10.8	13.9	14.7	14.7
82.5°	77.9	29.3	16.2	13.9	12.3	10.8	10.0	10.8	12.3	13.1	13.9
85°	48.6	19.3	14.7	13.1	10.8	10.0	10.0	10.0	11.6	12.3	12.3
87.5°	17.7	15.4	13.1	10.8	9.3	9.3	9.3	9.3	10.0	11.6	11.6
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)