

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: P237515

Luminaire Tested: **CTN-8-6-D-E1-T4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237515
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-27)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-6-D-E1-T4-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 4000K LEDS AND TYPE IV OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 54980 lumens
Efficiency: N/A
Efficacy: 115.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

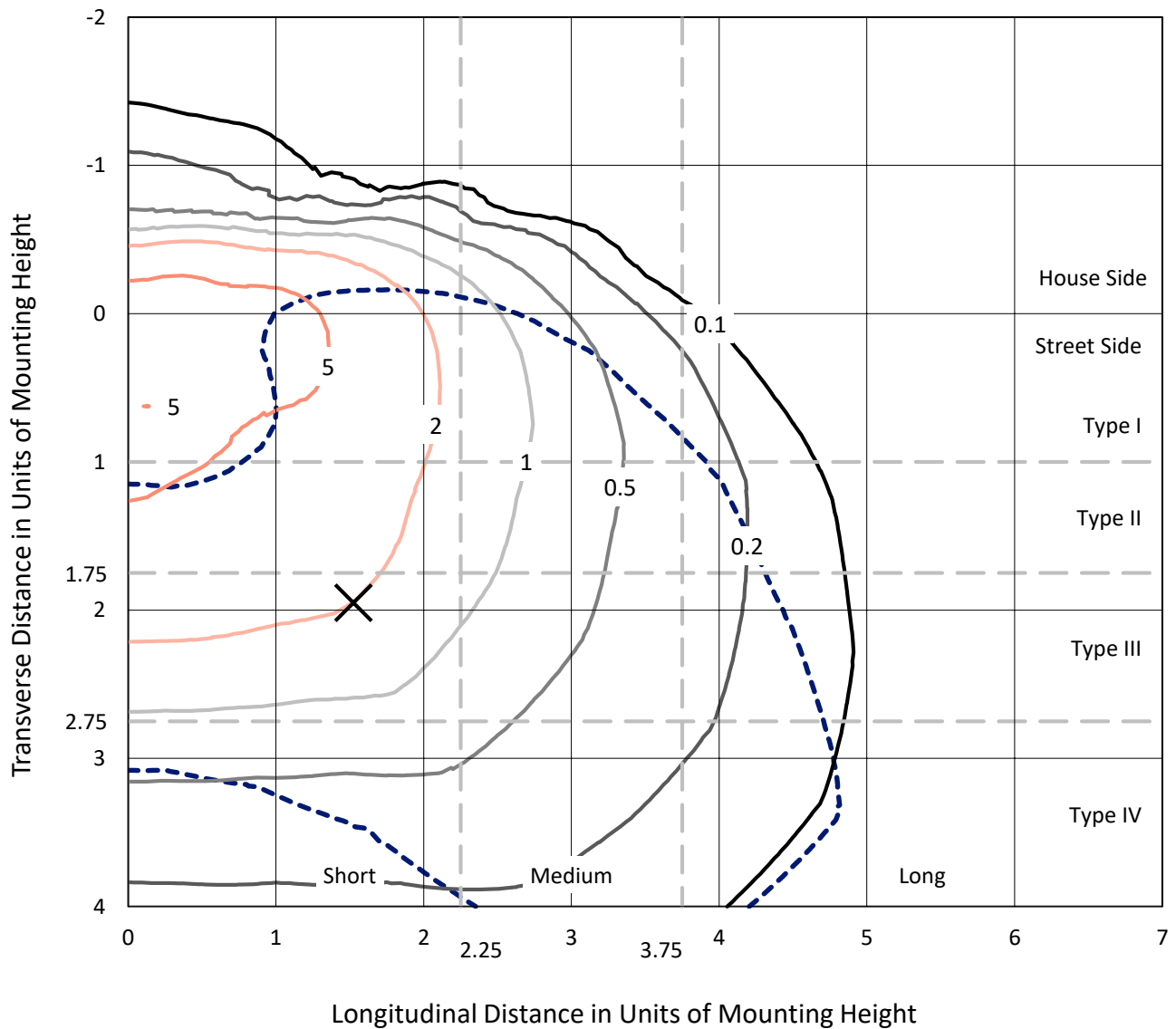
Input Watts (W): 477
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

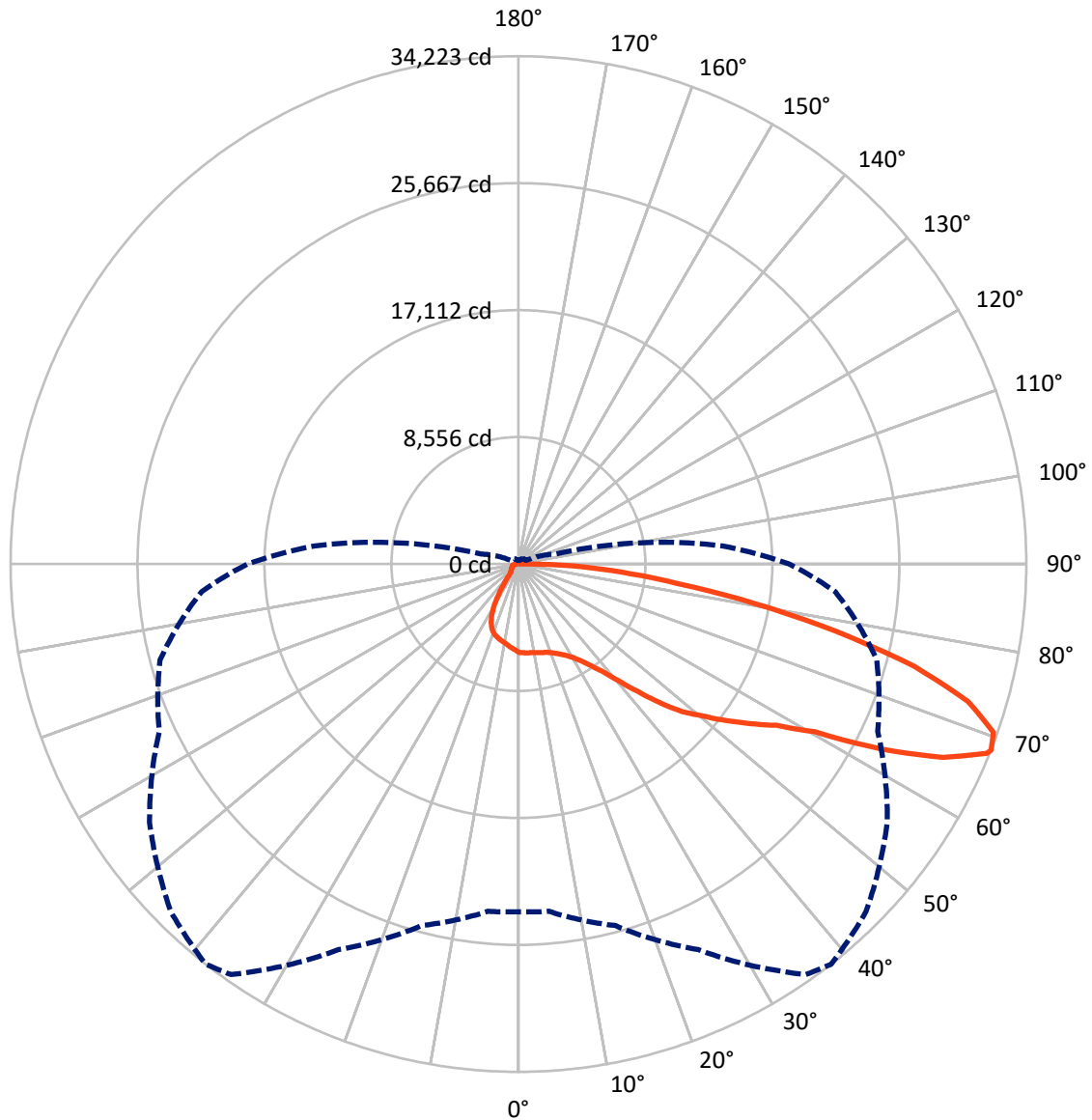


Based on 30 foot mounting height. Maximum calculated value = 7.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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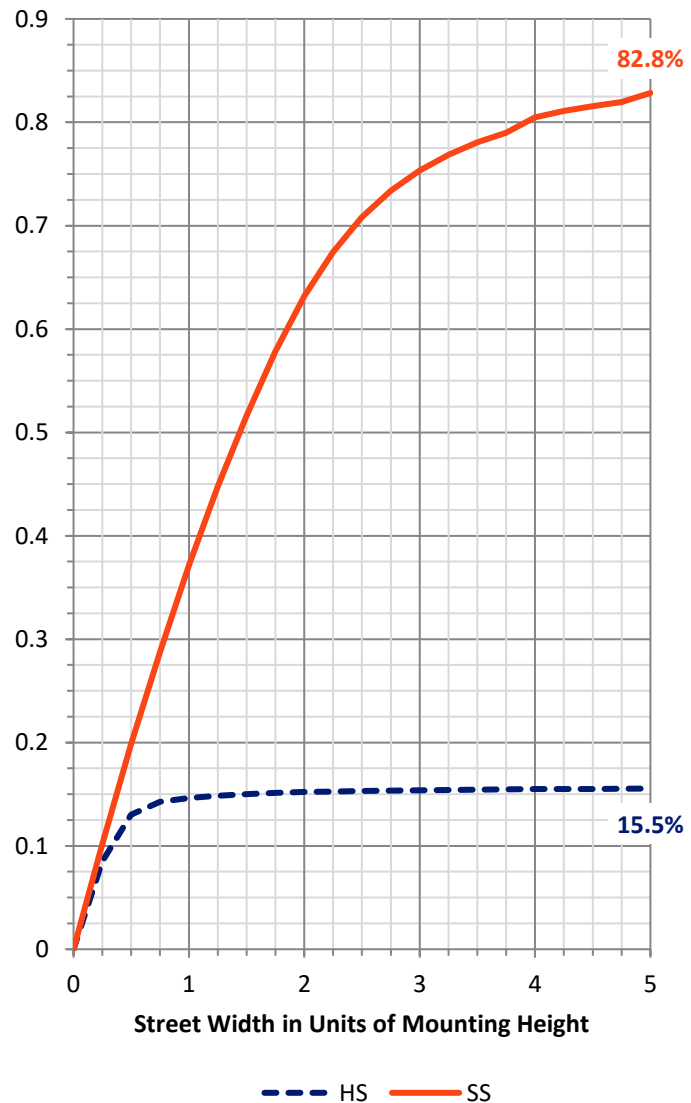
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8671.9	0.0	8671.9
	% Fixture	15.8	0.0	15.8
Street Side	Lumens	46308.0	0.0	46308.0
	% Fixture	84.2	0.0	84.2
Total	Lumens	54980.0	0.0	54980.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	562.9	1.0
10°-20°	1671.9	3.0
20°-30°	2790.2	5.1
30°-40°	4279.7	7.8
40°-50°	7368.0	13.4
50°-60°	10949.9	19.9
60°-70°	14485.8	26.3
70°-80°	10638.5	19.3
80°-90°	2233.1	4.1
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°	54980.0	100.0
0°-180°	54980.0	100.0

Coefficient of Utilization



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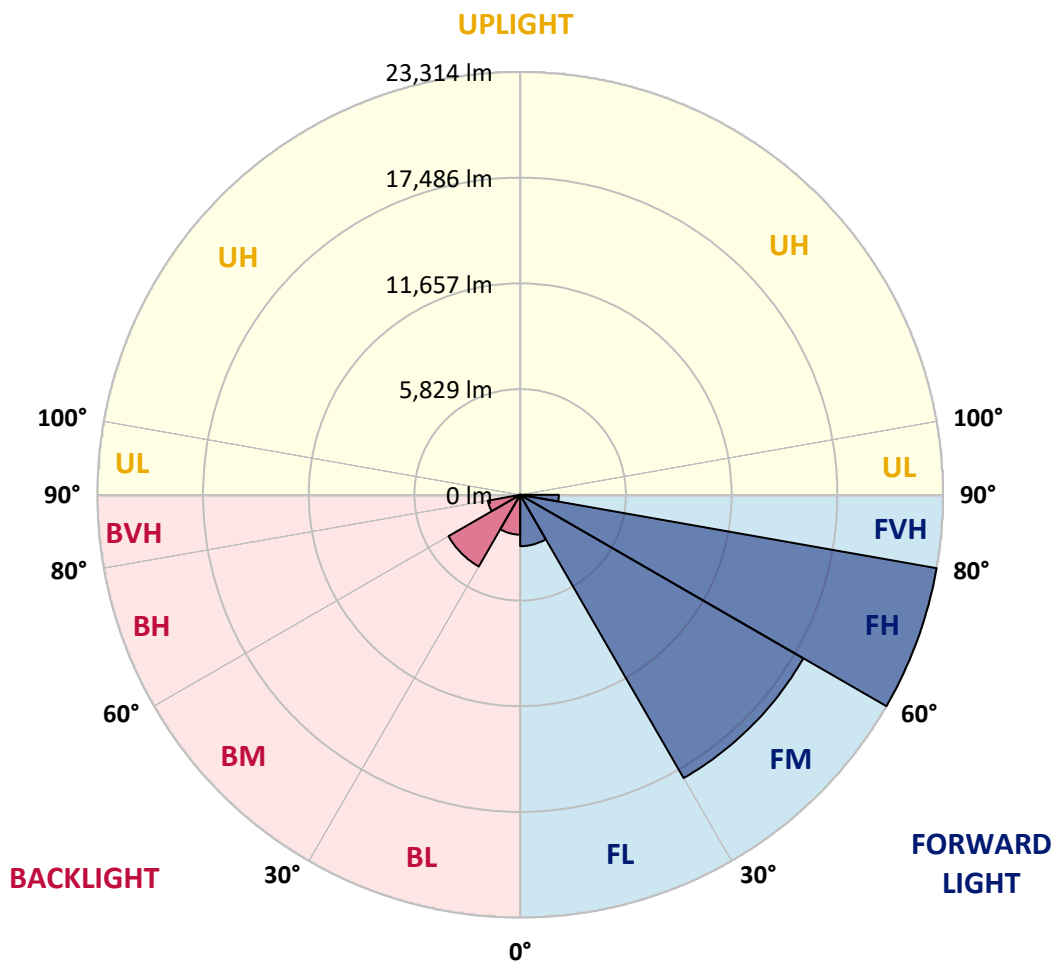
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2830.8	5.1			
FM	(30°-60°)	18032.6	32.8			
FH	(60°-80°)	23314.3	42.4			G5
FVH	(80°-90°)	2130.4	3.9			G5
BL	(0°-30°)	2194.2	4.0	B3/2500		
BM	(30°-60°)	4565.1	8.3	B3/5000		
BH	(60°-80°)	1810.0	3.3	B3/2500		G3/2500
BVH	(80°-90°)	102.7	0.2			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	5970.8	5970.8	5970.8	5970.8	5970.8	5970.8	5970.8	5970.8	5970.8	5970.8	5970.8
2.5°	6097.5	6055.3	6063.3	6089.4	5982.9	5974.9	6009.0	5970.8	6021.1	5997.0	5999.0
5°	6113.5	6073.3	6089.4	6129.6	6029.1	6027.1	6065.3	6017.1	6055.3	6025.1	6017.1
7.5°	6099.5	6063.3	6075.4	6113.5	6027.1	6033.1	6083.4	6067.3	6123.6	6093.4	6071.3
10°	6093.4	6069.3	6071.3	6123.6	6055.3	6071.3	6135.6	6145.7	6236.1	6210.0	6200.0
12.5°	6039.2	6021.1	6039.2	6121.6	6099.5	6131.6	6218.0	6270.3	6376.8	6366.8	6386.9
15°	6007.0	5999.0	6013.1	6109.5	6135.6	6187.9	6302.4	6404.9	6533.6	6551.7	6597.9
17.5°	6045.2	6057.3	6083.4	6161.8	6197.9	6252.2	6380.8	6521.5	6704.4	6782.8	6837.0
20°	6206.0	6220.1	6244.2	6294.4	6334.6	6380.8	6495.4	6656.2	6899.3	7021.9	7108.3
22.5°	6439.1	6415.0	6449.2	6491.4	6503.4	6543.6	6660.2	6821.0	7096.3	7281.2	7401.8
25°	6620.0	6603.9	6638.1	6710.4	6708.4	6744.6	6859.1	7023.9	7321.4	7586.7	7799.7
27.5°	6808.9	6798.8	6812.9	6909.4	6947.6	6991.8	7092.3	7277.2	7612.8	7946.4	8282.0
30°	7082.2	7104.3	7080.2	7190.7	7273.1	7323.4	7425.9	7653.0	8012.7	8468.9	8893.0
32.5°	7506.3	7516.3	7476.1	7598.7	7717.3	7793.7	7892.1	8189.6	8583.5	9140.2	9686.8
35°	8410.6	8412.6	8247.8	8229.8	8296.1	8406.6	8551.3	8993.5	9580.3	10438.4	11057.4
37.5°	9781.3	9714.9	9558.2	9252.7	9154.2	9174.3	9381.3	9996.3	10886.6	12470.2	13063.1
40°	11352.8	11276.5	11001.2	10597.2	10307.8	10289.7	10360.1	11097.6	12399.9	14755.3	15054.7
42.5°	13049.0	12996.8	12550.6	12132.6	11762.8	11704.5	11545.8	12285.4	14068.0	16795.1	16793.1
45°	14614.6	14604.6	14059.9	13852.9	13461.0	13308.3	13119.4	13694.2	15782.2	18402.9	18210.0
47.5°	16083.7	16053.6	15474.8	15237.6	14938.2	14855.8	14632.7	15034.6	17247.3	19904.2	19423.8
50°	17643.2	17550.8	16690.6	16451.5	16156.1	16091.7	15975.2	16437.4	18843.0	21216.5	20420.7
52.5°	19456.0	19315.3	18141.6	17697.5	17486.5	17528.7	17454.3	17868.3	20627.7	22313.8	21236.6
55°	21600.4	21178.3	20056.9	19251.0	18782.7	18977.7	18833.0	19349.5	22339.9	23167.9	21831.5
57.5°	23174.0	23172.0	22715.7	21570.2	20509.1	20519.1	20227.7	20816.6	23724.6	24018.0	22179.2
60°	24974.7	25081.2	25237.9	24729.5	23477.4	22952.9	21927.9	22269.6	24838.0	24635.0	22333.9
62.5°	26540.2	26602.5	27295.9	27490.8	27587.3	27458.7	25179.7	23943.7	25748.4	24978.7	22378.1
65°	26484.0	26477.9	27977.2	29283.5	31313.3	31427.8	30770.7	26429.7	26453.8	25022.9	22149.0
67.5°	23899.5	24022.1	26027.7	28827.3	33668.7	34030.4	33124.0	30039.1	26715.1	25002.8	21602.4
68°	23437.2	23489.5	25223.9	28666.5	33769.1	34223.3	33128.1	30340.6	26707.0	25004.8	21433.6
70°	20493.0	20571.4	22593.2	26719.1	33797.3	33954.0	32631.7	30505.4	26441.7	24817.9	20215.7
72.5°	16178.2	16268.6	18111.5	22544.9	31691.1	31685.1	30406.9	29124.7	25543.4	23451.3	17148.9
75°	11720.6	12016.1	13627.8	17707.6	27129.1	27543.1	27378.3	27123.0	22987.1	19817.7	12102.5
77.5°	8217.7	8368.4	9885.8	13318.3	21319.0	21952.1	23063.4	23393.0	19162.6	14717.1	5450.3
80°	5183.0	5466.4	6722.5	9457.7	15531.0	16115.9	17462.4	18017.0	14144.3	7218.9	954.6
82.5°	3020.6	3189.4	4113.9	6125.6	10442.5	10850.4	11732.7	11051.4	5733.7	960.6	530.6
85°	1463.1	1617.8	2208.7	3484.8	6519.5	6931.5	7407.8	4819.3	948.6	377.8	357.7
87.5°	592.9	608.9	904.4	1547.5	3249.7	3603.4	3486.8	1581.6	247.2	136.7	112.5
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°	5970.8	5970.8	5970.8	5970.8	5970.8	5970.8	5970.8	5970.8	5970.8	5970.8	5970.8
2.5°	6009.0	5978.9	5942.7	5930.7	5846.2	5842.2	5771.9	5874.4	5844.2	5846.2	5870.4
5°	6013.1	5978.9	5908.5	5876.4	5786.0	5761.8	5645.3	5709.6	5641.3	5635.2	5675.4
7.5°	6055.3	6017.1	5916.6	5866.3	5697.5	5617.1	5506.6	5562.9	5458.4	5436.3	5444.3
10°	6167.8	6119.6	5997.0	5878.4	5669.4	5552.8	5335.8	5353.9	5261.4	5231.3	5257.4
12.5°	6338.6	6280.3	6133.6	5958.8	5693.5	5488.5	5223.2	5116.7	4976.0	4929.8	4943.9
15°	6571.8	6503.4	6310.5	6107.5	5745.8	5458.4	5096.6	4875.6	4602.2	4525.9	4497.7
17.5°	6827.0	6754.6	6531.6	6276.3	5838.2	5424.2	4951.9	4600.2	4206.3	4033.5	4023.4
20°	7126.4	7048.1	6814.9	6473.3	5912.6	5382.0	4771.1	4266.6	3754.1	3464.7	3444.6
22.5°	7470.1	7401.8	7138.5	6648.1	5950.7	5271.5	4497.7	3840.6	3199.5	2837.7	2819.6
25°	7874.0	7809.7	7439.9	6770.7	5908.5	5076.5	4123.9	3318.0	2546.3	2184.6	2168.5
27.5°	8356.4	8255.9	7677.1	6806.9	5783.9	4757.0	3655.7	2646.8	1881.1	1605.8	1591.7
30°	8905.0	8726.2	7900.2	6796.8	5562.9	4349.0	3010.5	1951.4	1336.5	1151.6	1145.5
32.5°	9596.4	9282.8	8113.2	6716.4	5247.4	3814.4	2291.1	1354.5	960.6	870.2	868.2
35°	10749.9	10078.7	8346.3	6571.8	4819.3	3113.0	1587.7	922.5	781.8	763.7	763.7
37.5°	12470.2	11391.0	8677.9	6340.6	4264.6	2373.5	1045.0	733.5	735.6	745.6	747.6
40°	14236.8	12900.3	9158.2	5997.0	3617.5	1668.1	759.7	681.3	705.4	721.5	733.5
42.5°	15858.6	14266.9	9692.8	5526.7	2885.9	1101.3	679.3	655.2	667.2	679.3	691.3
45°	17219.2	15464.7	10197.3	4990.1	2138.3	783.8	673.3	625.0	619.0	627.0	635.1
47.5°	18366.7	16439.4	10551.0	4385.2	1455.0	671.2	657.2	592.9	572.8	574.8	578.8
50°	19243.0	17128.8	10707.7	3720.0	964.7	653.2	627.0	558.7	526.5	526.5	530.6
52.5°	19833.8	17560.8	10615.3	2970.4	693.3	643.1	602.9	522.5	484.3	490.4	494.4
55°	20271.9	17792.0	10251.5	2182.5	611.0	613.0	574.8	480.3	448.2	464.2	470.3
57.5°	20442.8	17785.9	9640.6	1507.3	606.9	566.7	534.6	444.1	418.0	440.1	450.2
60°	20380.5	17492.5	8752.3	1027.0	594.9	530.6	492.4	410.0	389.9	389.9	391.9
62.5°	20255.9	17080.5	7464.1	761.7	566.7	504.4	460.2	381.8	357.7	345.7	341.7
65°	19693.1	16081.7	5480.5	657.2	538.6	490.4	430.1	355.7	323.6	303.5	299.4
67.5°	18579.8	14363.4	3062.8	606.9	518.5	482.3	410.0	331.6	295.4	271.3	269.3
68°	18238.1	13826.8	2596.5	602.9	522.5	482.3	408.0	325.6	291.4	265.3	263.3
70°	16216.3	11153.9	1073.2	566.7	550.7	484.3	397.9	307.5	275.3	249.2	247.2
72.5°	12265.3	6461.2	566.7	492.4	536.6	476.3	401.9	293.4	261.3	231.1	227.1
75°	6758.7	1850.9	504.4	399.9	496.4	502.4	410.0	291.4	253.2	215.0	207.0
77.5°	1501.3	602.9	470.3	349.7	428.1	462.2	379.8	277.3	257.2	197.0	188.9
80°	574.8	490.4	446.2	269.3	339.6	391.9	315.5	247.2	263.3	184.9	174.8
82.5°	480.3	430.1	410.0	209.0	235.1	287.4	253.2	211.0	243.2	170.8	162.8
85°	353.7	416.0	289.4	164.8	172.8	176.9	176.9	164.8	209.0	150.7	142.7
87.5°	142.7	201.0	122.6	76.4	88.4	82.4	72.3	88.4	120.6	106.5	106.5
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)