

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: P237532

Luminaire Tested: **CTN-10-8-D-E1-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237532
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-26)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-10-8-D-E1-T3-7030-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 3000K LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 72621 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B4 - U0 - G5

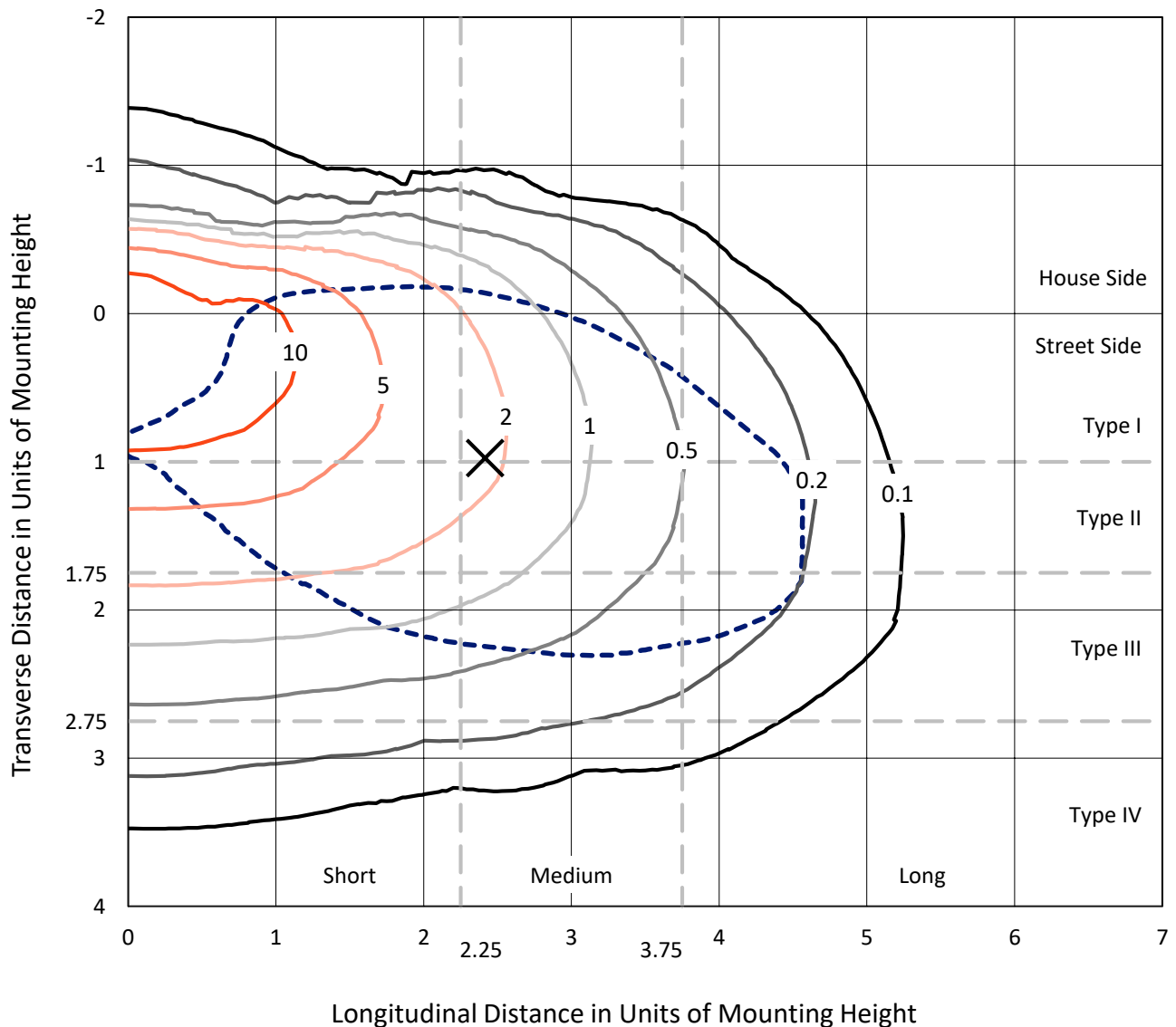
Input Watts (W): 631
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

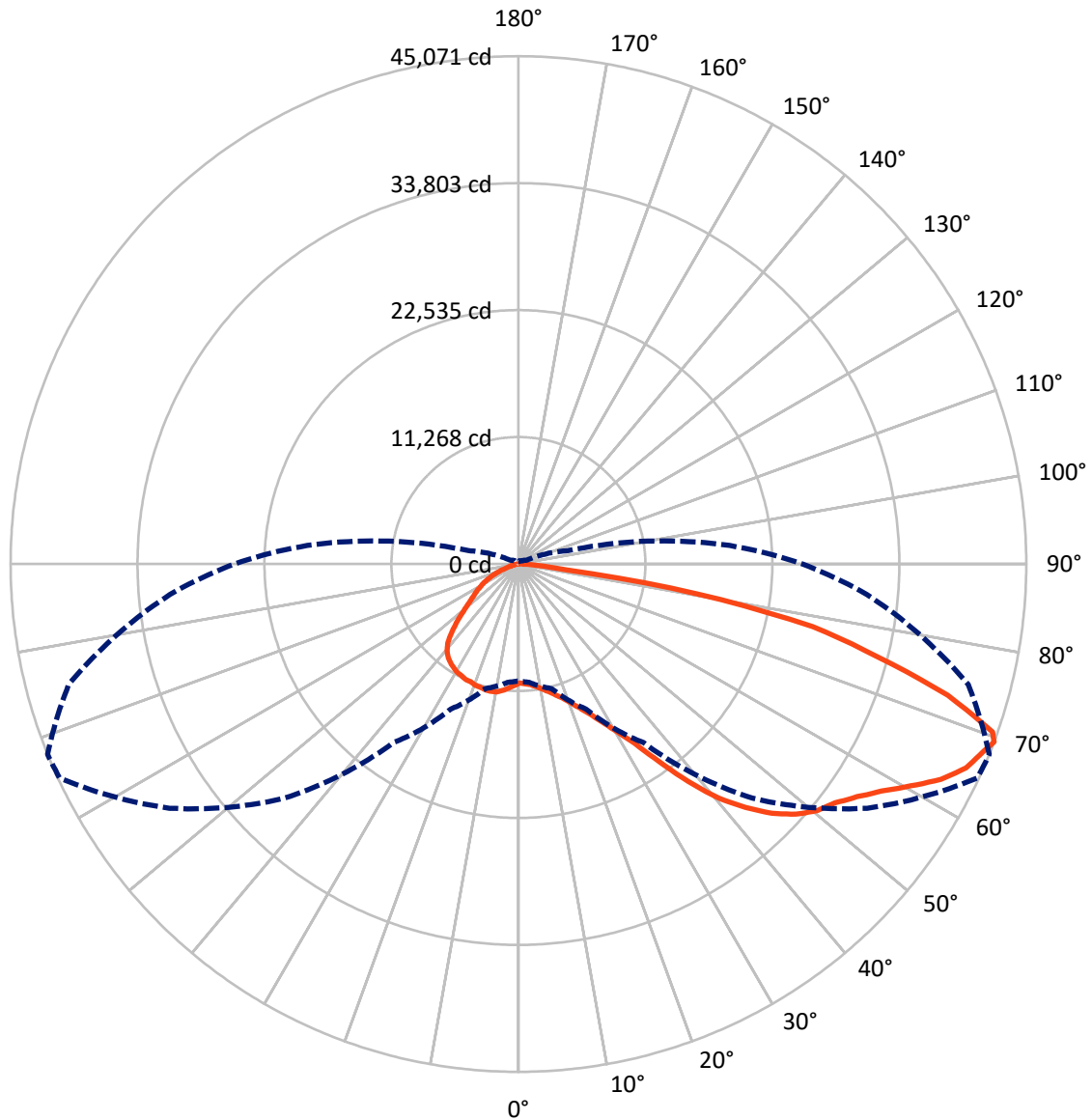
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.3 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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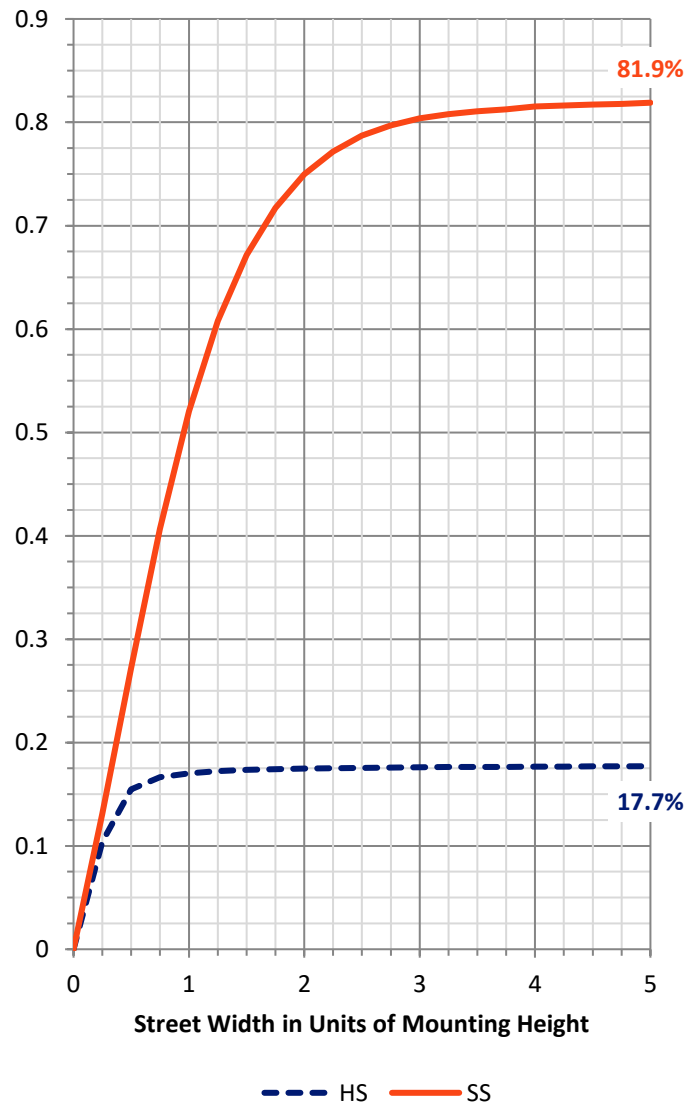
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13032.9	0.0	13032.9
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	59588.1	0.0	59588.1
	% Fixture	82.1	0.0	82.1
Total	Lumens	72621.0	0.0	72621.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1060.8	1.5
10°-20°	3328.9	4.6
20°-30°	5690.3	7.8
30°-40°	8768.2	12.1
40°-50°	12582.7	17.3
50°-60°	15143.9	20.9
60°-70°	15892.1	21.9
70°-80°	9206.8	12.7
80°-90°	947.3	1.3
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°	72621.0	100.0
0°-180°	72621.0	100.0

Coefficient of Utilization



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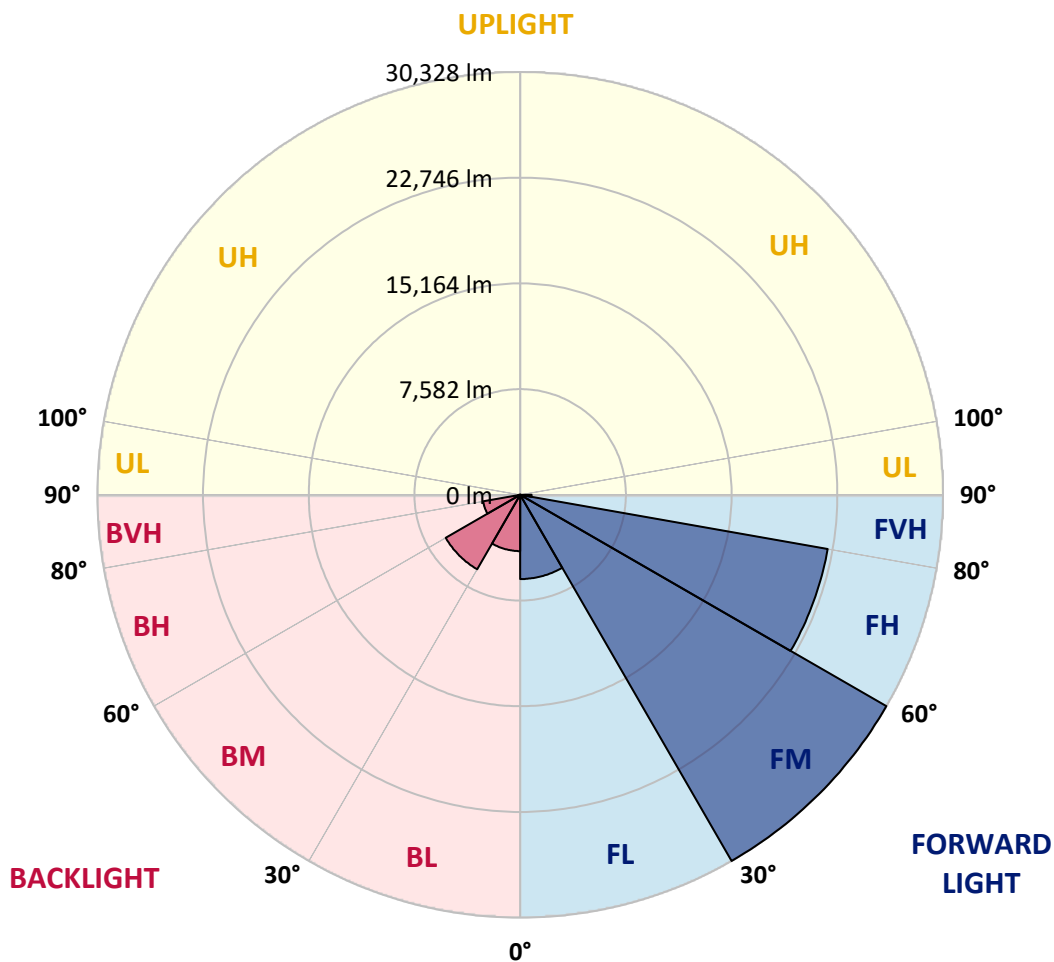
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6041.7	8.3			
FM	(30°-60°)	30327.6	41.8			
FH	(60°-80°)	22395.5	30.8			G5
FVH	(80°-90°)	823.3	1.1			G5
BL	(0°-30°)	4038.3	5.6	B4/5000		
BM	(30°-60°)	6167.2	8.5	B4/8500		
BH	(60°-80°)	2703.4	3.7	B4/5000		G4/5000
BVH	(80°-90°)	124.0	0.2			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	10563.1	10563.1	10563.1	10563.1	10563.1	10563.1	10563.1	10563.1	10563.1	10563.1	10563.1
2.5°	10681.4	10595.8	10605.9	10673.8	10472.5	10558.1	10505.2	10615.9	10633.6	10580.7	10628.5
5°	10892.7	10819.8	10817.2	10885.2	10661.2	10726.7	10643.6	10719.1	10741.8	10686.4	10769.4
7.5°	11302.9	11224.9	11209.8	11277.7	10993.4	11013.5	10900.3	10938.0	10958.1	10882.7	10965.7
10°	11891.7	11806.1	11750.8	11788.5	11468.9	11418.6	11224.9	11219.8	11250.0	11146.9	11280.2
12.5°	12550.9	12450.3	12369.7	12377.3	12012.4	11926.9	11670.2	11579.7	11599.8	11461.4	11622.4
15°	13268.0	13122.1	13046.6	13049.1	12639.0	12495.6	12165.9	12017.5	12004.9	11871.5	11964.6
17.5°	14131.1	14012.8	13917.2	13866.9	13431.6	13147.3	12754.7	12561.0	12490.5	12402.5	12354.7
20°	15145.1	14996.7	14896.0	14878.4	14345.0	13967.5	13446.7	13190.0	13107.0	13034.0	12820.2
22.5°	16274.9	16124.0	15985.6	15962.9	15396.8	14941.3	14241.8	13924.8	13851.8	13768.8	13341.0
25°	17316.6	17299.0	17145.5	17120.4	16574.4	15983.0	15162.8	14757.6	14757.6	14659.5	14002.8
27.5°	18479.1	18504.3	18365.9	18335.7	17822.4	17168.2	16191.9	15804.4	15884.9	15708.8	14835.6
30°	19704.5	19651.7	19614.0	19646.7	19171.1	18479.1	17462.6	17135.5	17261.3	17060.0	15952.8
32.5°	20801.6	20761.3	20786.5	20912.3	20570.1	19931.0	19057.9	18854.1	18974.8	19100.6	17955.8
35°	21669.7	21584.2	21901.2	22178.0	22079.8	21473.4	20771.4	21201.7	21533.8	22107.5	20907.3
37.5°	22434.6	22371.7	22756.7	23322.9	23446.2	23109.0	22892.6	24092.8	24472.8	25245.3	23496.5
40°	22817.1	22804.5	23277.6	24014.8	24515.6	24734.5	25114.4	26750.0	27303.5	27514.9	25466.7
42.5°	22693.8	22734.1	23569.5	24706.8	25517.0	26455.6	27220.5	29019.6	29527.9	29354.2	27192.8
45°	22349.1	22369.2	23217.2	24991.1	26385.1	28224.5	29246.1	31123.2	31573.6	30962.1	28566.7
47.5°	21871.0	21878.6	22774.3	24794.9	27094.7	29824.8	30992.3	32804.0	33168.8	32305.8	29555.5
50°	21224.3	21236.9	22306.3	24548.3	27706.1	31135.7	32358.6	34107.4	34389.2	33259.4	30411.1
52.5°	20406.6	20517.3	21687.3	24153.2	28088.6	32066.7	33392.8	35063.6	35201.9	34399.3	31168.4
55°	19463.0	19578.7	20899.7	23617.3	28237.0	32595.1	34117.5	36241.1	36462.6	35672.5	31784.9
57.5°	18345.8	18504.3	19895.8	22746.6	27889.8	32816.6	34854.7	37695.5	37995.0	37003.6	32419.0
60°	17049.9	17246.2	18710.6	21659.6	27087.1	33050.6	36233.6	39645.6	39992.8	38435.3	32972.6
62.5°	15696.2	15822.0	17145.5	20177.6	25801.3	33231.7	37718.2	42048.6	42078.8	39690.9	33279.6
65°	13884.5	14017.9	15203.0	18305.5	23871.4	32655.5	38468.0	43734.5	43643.9	40674.7	33176.4
67.5°	11811.1	11937.0	12905.7	15978.0	21221.8	31040.1	38211.3	44406.3	44466.7	41389.3	32187.5
69°	10371.9	10537.9	11451.3	14209.1	19349.7	29387.0	37781.1	44929.7	45070.6	41323.9	31042.6
70°	9141.4	9355.3	10223.4	12646.5	17764.5	27884.8	36950.7	44632.7	44642.8	40662.2	29988.3
72.5°	5971.0	6101.8	6252.8	8205.4	12779.9	22097.5	32698.3	39582.7	39844.4	36283.9	26219.0
75°	2954.0	3069.8	3633.4	4340.5	6572.4	14802.9	25924.6	32429.1	32924.8	30813.7	21481.0
77.5°	1630.5	1653.2	1851.9	2843.3	3407.0	6693.2	17719.2	25851.7	26719.8	25111.9	15427.0
80°	1016.6	1011.5	1056.8	1323.5	1909.8	3173.0	7483.2	14508.5	16068.6	13112.0	6096.8
82.5°	792.6	777.5	780.0	855.5	807.7	1494.6	3115.1	4224.7	4262.5	3784.4	2372.8
85°	405.1	458.0	543.5	568.7	478.1	812.7	1434.2	1668.3	1708.5	1497.2	1235.5
87.5°	135.9	138.4	145.9	143.4	128.3	279.3	530.9	619.0	551.1	312.0	422.7
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°	10563.1	10563.1	10563.1	10563.1	10563.1	10563.1	10563.1	10563.1	10563.1	10563.1	10563.1
2.5°	10701.5	10678.8	10724.1	10827.3	10741.8	10819.8	10741.8	11003.4	10973.2	10955.6	11006.0
5°	10849.9	10847.4	10920.4	11086.5	11078.9	11217.3	11141.8	11401.0	11363.3	11358.2	11403.5
7.5°	11051.2	11099.1	11177.1	11348.2	11350.7	11463.9	11378.4	11582.2	11499.1	11479.0	11541.9
10°	11358.2	11370.8	11431.2	11549.5	11383.4	11433.7	11292.8	11453.8	11338.1	11325.5	11418.6
12.5°	11652.6	11670.2	11579.7	11541.9	11328.0	11262.6	11016.0	11101.6	10968.2	10955.6	11000.9
15°	11967.2	11848.9	11632.5	11509.2	11139.3	10902.8	10626.0	10457.4	10228.4	10122.8	10163.0
17.5°	12294.3	12065.3	11660.2	11360.7	10865.0	10520.3	9969.3	9682.4	9342.7	9169.1	9136.4
20°	12651.6	12329.5	11728.1	11285.3	10588.3	9908.9	9237.1	8580.3	8192.8	8014.2	7966.4
22.5°	13054.2	12661.6	11823.7	11033.6	10155.5	9330.2	8195.3	7367.5	6803.9	6630.2	6582.4
25°	13557.4	13034.0	11954.6	10970.7	9740.3	8384.1	6972.5	6033.9	5377.2	5113.0	5057.6
27.5°	14168.8	13547.3	12168.5	10671.3	9010.6	7329.8	5757.1	4677.7	3995.8	3683.7	3615.8
30°	15059.6	14204.1	12311.9	10495.2	8361.4	6235.2	4473.8	3268.6	2621.9	2392.9	2332.5
32.5°	16815.9	15331.3	12603.8	10090.1	7402.7	4962.0	3079.9	2005.4	1552.5	1421.7	1371.3
35°	19425.2	17455.0	13024.0	9609.5	6325.8	3530.3	1829.3	1162.5	933.5	885.7	870.6
37.5°	21803.1	19551.0	13836.7	8869.7	4911.7	2171.5	1059.3	744.8	686.9	694.5	694.5
40°	23597.1	21108.6	14785.3	7893.4	3331.5	1217.9	727.2	619.0	631.6	634.1	631.6
42.5°	25278.0	22535.3	15243.3	6816.4	1929.9	807.7	631.6	576.2	586.3	578.7	573.7
45°	26599.0	23556.9	15379.1	5367.1	1056.8	722.2	593.8	536.0	530.9	536.0	541.0
47.5°	27457.0	24180.9	15069.7	4109.0	797.6	671.8	571.2	508.3	495.7	530.9	528.4
50°	28093.6	24608.7	13869.4	3125.1	777.5	629.1	543.5	475.6	480.6	523.4	518.3
52.5°	28556.6	24719.4	12553.4	2506.2	742.3	598.9	518.3	460.5	455.4	488.1	490.7
55°	28924.0	24422.5	11733.1	1972.7	712.1	568.7	498.2	445.4	420.2	430.3	427.8
57.5°	29153.0	24082.8	10797.1	1645.6	684.4	536.0	470.5	405.1	367.4	369.9	367.4
60°	29102.6	23856.3	9722.7	1348.7	649.2	505.8	432.8	362.3	324.6	314.5	314.5
62.5°	29002.0	23390.8	8613.0	1175.1	619.0	495.7	387.5	329.6	301.9	291.9	291.9
65°	28317.6	22281.1	7128.5	1006.5	588.8	468.0	362.3	317.0	284.3	274.3	274.3
67.5°	26619.1	20446.8	5520.6	875.6	566.1	422.7	354.8	309.5	274.3	261.7	261.7
69°	25184.9	18816.3	4534.2	805.2	543.5	402.6	354.8	312.0	269.2	254.1	254.1
70°	24065.1	17535.6	3751.7	762.4	520.9	390.0	354.8	314.5	266.7	249.1	246.6
72.5°	20650.6	13690.8	2083.4	646.7	432.8	354.8	347.2	317.0	254.1	229.0	226.5
75°	15844.7	9624.5	1240.5	546.0	364.9	324.6	329.6	304.5	234.0	206.3	206.3
77.5°	9901.3	4421.0	923.5	427.8	296.9	281.8	286.8	269.2	211.4	188.7	188.7
80°	3381.8	1995.4	697.0	329.6	213.9	218.9	236.5	226.5	188.7	171.1	168.6
82.5°	1851.9	1298.4	493.2	229.0	148.5	181.2	181.2	183.7	163.6	151.0	148.5
85°	1006.5	676.9	304.5	138.4	105.7	133.4	128.3	138.4	133.4	123.3	120.8
87.5°	349.8	231.5	100.6	50.3	42.8	45.3	52.8	70.5	67.9	70.5	73.0
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)