

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: P237571

Luminaire Tested: **CTN-8-6-D-E1-T2-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237571
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-25)
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-T2-7050-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 5000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 57465 lumens
Efficiency: N/A
Efficacy: 120.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B4 - U0 - G5

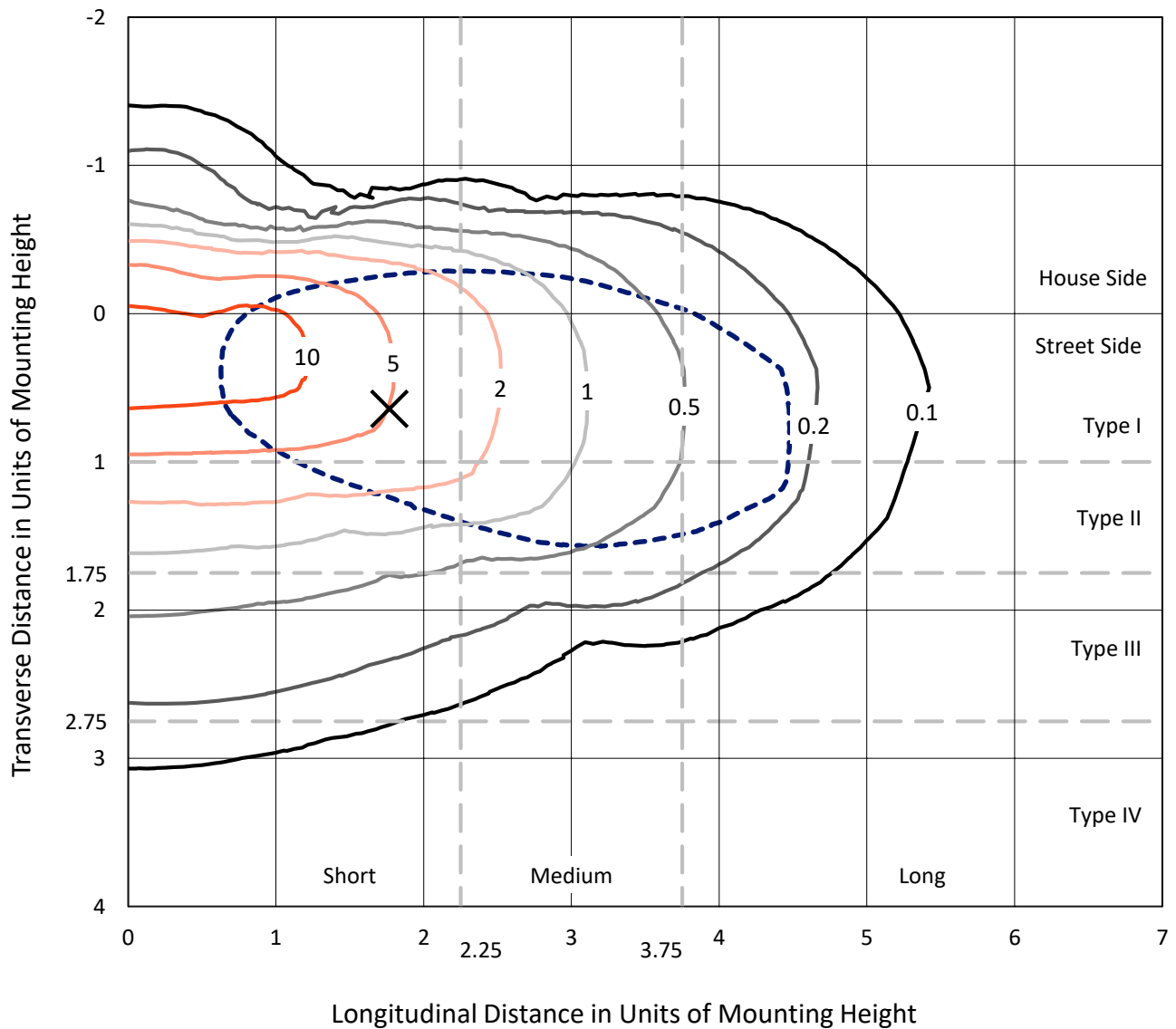
Input Watts (W): 477
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

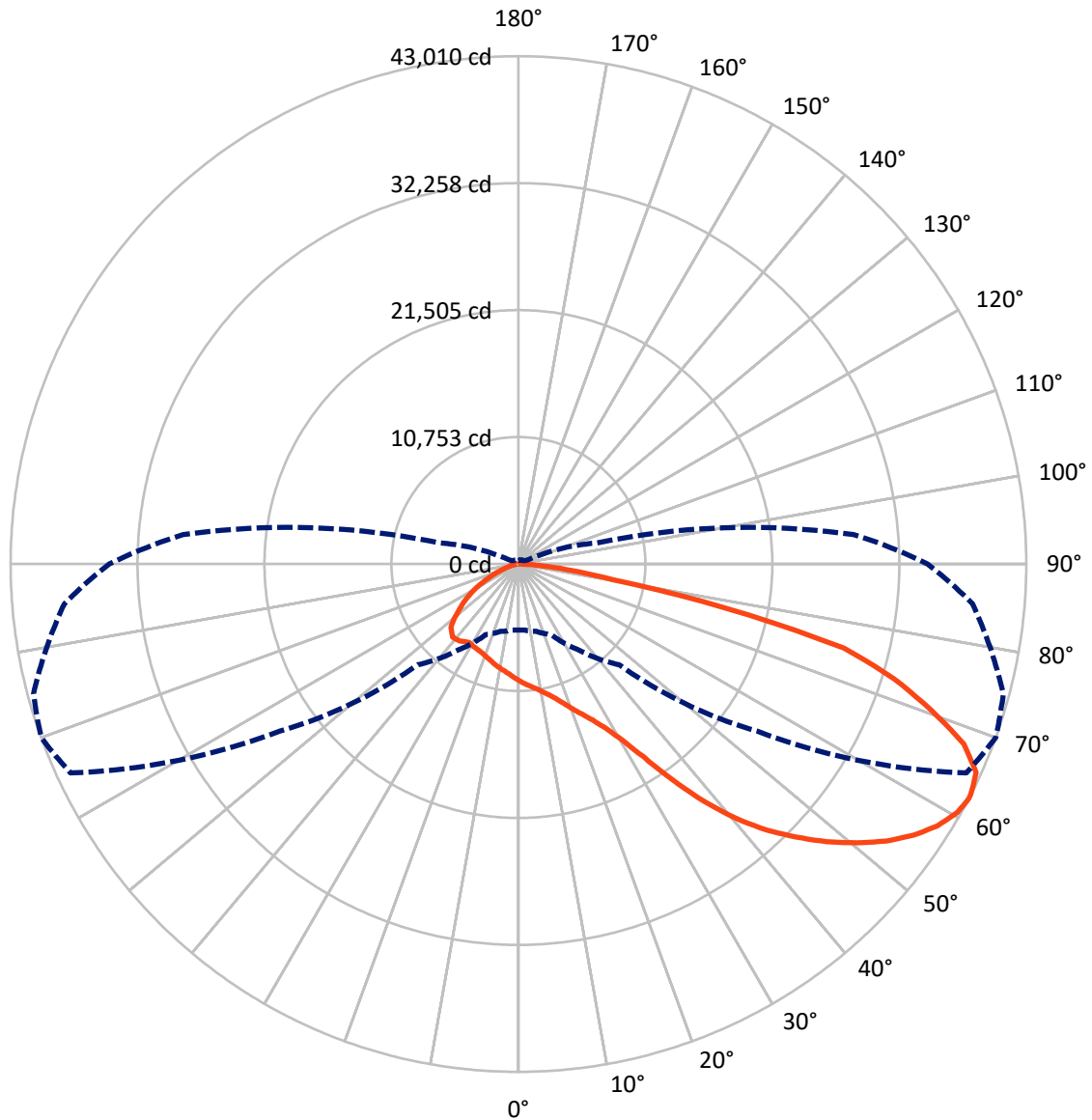
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.2 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

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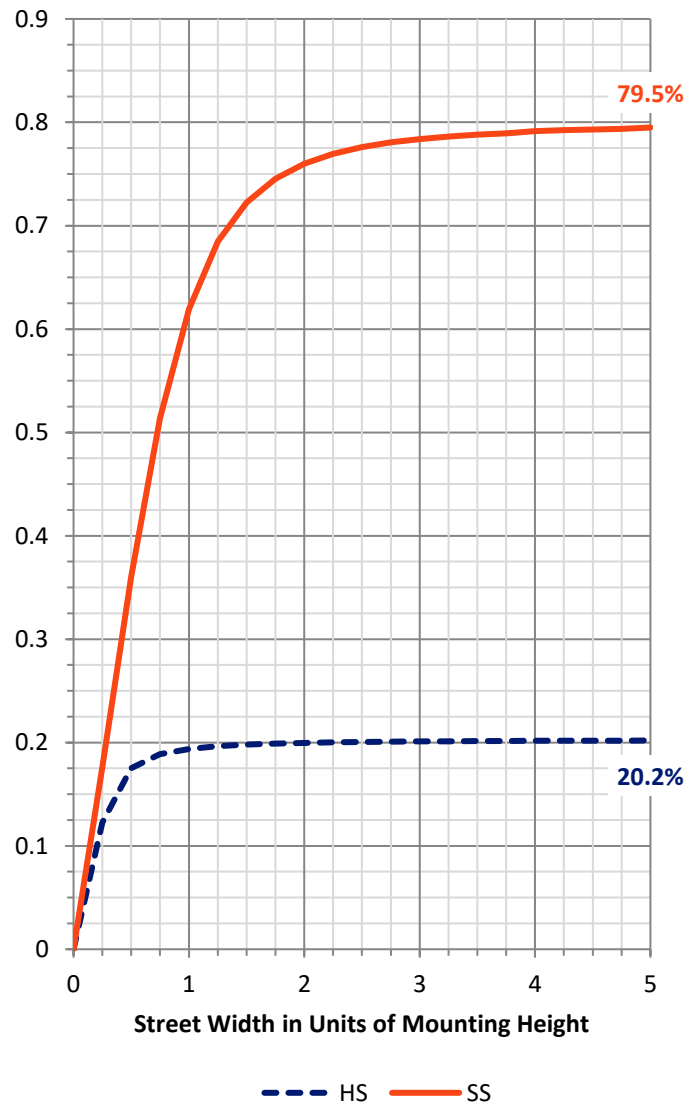
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11755.0	0.0	11755.0
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	45710.0	0.0	45710.0
	% Fixture	79.5	0.0	79.5
Total	Lumens	57465.0	0.0	57465.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	941.7	1.6
10°-20°	2865.1	5.0
20°-30°	4823.7	8.4
30°-40°	7283.6	12.7
40°-50°	10213.9	17.8
50°-60°	11937.6	20.8
60°-70°	11581.7	20.2
70°-80°	6770.6	11.8
80°-90°	1047.3	1.8
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°	57465.0	100.0
0°-180°	57465.0	100.0

Coefficient of Utilization



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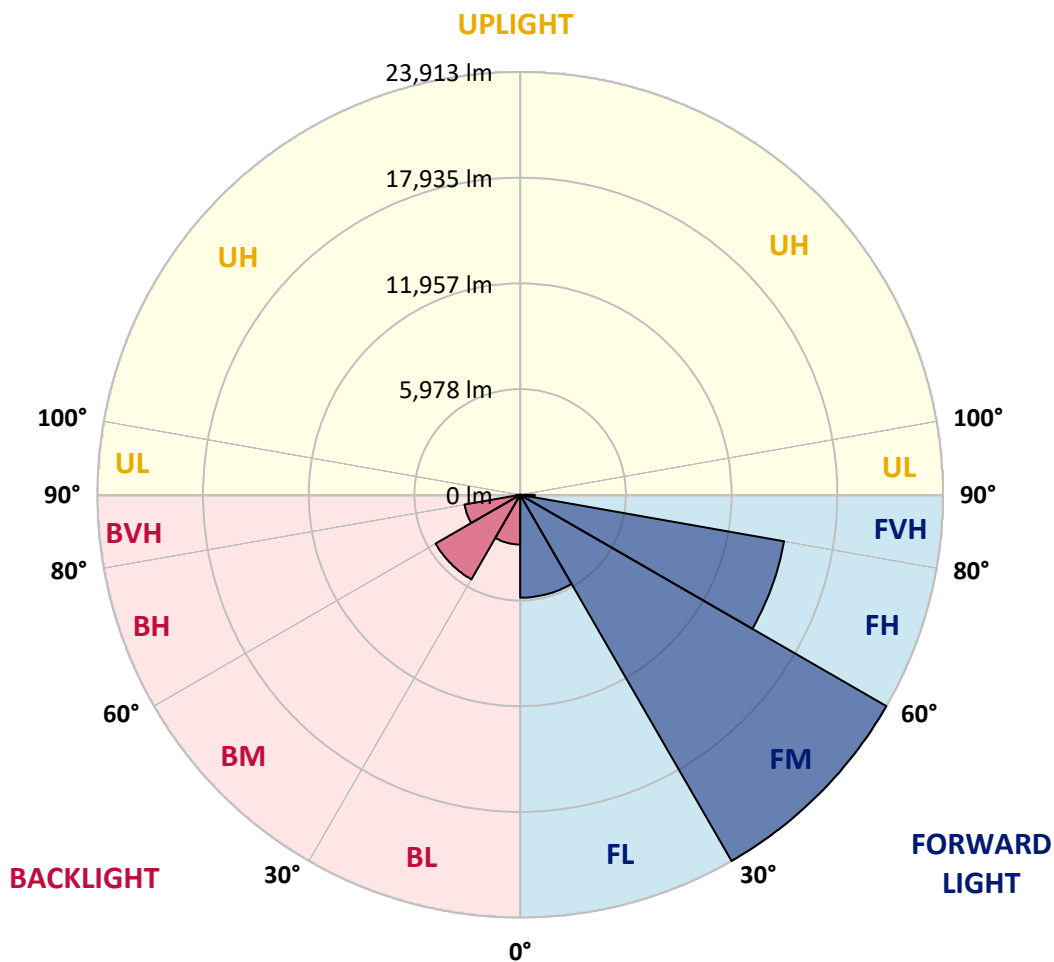
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5820.0	10.1			
FM	(30°-60°)	23913.3	41.6			
FH	(60°-80°)	15156.0	26.4			G5
FVH	(80°-90°)	820.7	1.4			G5
BL	(0°-30°)	2810.5	4.9	B4/5000		
BM	(30°-60°)	5521.7	9.6	B4/8500		
BH	(60°-80°)	3196.2	5.6	B4/5000		G4/5000
BVH	(80°-90°)	226.6	0.4			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	9886.2	9886.2	9886.2	9886.2	9886.2	9886.2	9886.2	9886.2	9886.2	9886.2	9886.2
2.5°	10728.6	10657.6	10627.1	10671.8	10373.4	10379.5	10235.3	10213.0	10144.0	10046.6	9939.0
5°	11341.7	11258.5	11215.8	11242.2	10927.6	10872.8	10637.3	10521.6	10385.6	10263.8	10030.3
7.5°	11930.4	11845.1	11812.7	11798.5	11418.8	11335.6	11035.2	10830.1	10645.4	10489.1	10172.4
10°	12523.2	12435.9	12368.9	12387.2	11989.3	11841.1	11494.0	11211.8	10974.3	10771.3	10334.8
12.5°	13111.9	13006.3	12933.2	12933.2	12541.4	12397.3	12007.6	11646.2	11343.7	11088.0	10539.8
15°	13714.8	13576.8	13560.5	13560.5	13144.4	12969.8	12586.1	12186.2	11814.7	11485.8	10787.5
17.5°	14338.0	14163.4	14159.4	14185.8	13804.1	13607.2	13245.9	12872.3	12399.3	11983.2	11090.0
20°	14748.1	14591.8	14555.2	14634.4	14333.9	14206.1	13818.3	13556.5	13101.7	12606.4	11479.7
22.5°	15060.7	14965.3	14999.8	15129.7	14983.6	14873.9	14465.9	14230.4	13820.4	13312.9	12005.5
25°	15375.3	15312.4	15391.6	15621.0	15633.2	15663.6	15322.6	15022.1	14640.5	14187.8	12689.6
27.5°	15277.9	15259.6	15499.2	15972.2	16232.0	16370.1	16179.2	16073.7	15724.5	15247.5	13550.4
30°	15349.0	15304.3	15592.6	16191.4	16770.0	17169.9	17169.9	17409.4	17257.2	16778.1	14863.8
32.5°	15137.8	15054.6	15385.5	16244.2	17238.9	18016.4	18361.5	19210.1	19476.0	19303.4	17468.3
35°	14165.5	14228.4	14876.0	16033.1	17561.7	18844.6	19758.2	21577.0	22395.1	22590.0	20466.6
37.5°	13558.5	13584.9	14244.6	15688.0	17675.4	19658.7	21286.8	24309.5	25468.6	25588.4	23097.5
40°	12722.1	12821.6	13560.5	15225.1	17610.4	20346.9	22933.1	27003.3	28292.3	28192.9	25399.6
42.5°	12062.4	12090.8	12736.3	14490.3	17326.2	20895.0	24593.7	29449.5	30799.4	30521.3	27675.2
45°	11240.2	11293.0	11904.0	13576.8	16820.7	21173.1	26026.8	31743.4	32979.7	32632.5	29646.4
47.5°	10245.5	10476.9	11116.4	12592.2	15964.1	21144.7	27240.8	33728.7	35139.6	34605.7	31489.6
50°	8252.0	8534.2	9813.1	11705.1	14841.5	20746.8	28207.1	35915.1	37122.9	36585.0	33172.5
52.5°	7208.6	7263.4	7915.0	10708.3	13526.0	19857.6	28864.8	37721.8	38980.4	38414.0	34790.4
55°	6737.6	6794.5	7123.3	9094.5	12318.1	18282.3	29106.4	39445.3	40561.8	39912.2	36124.2
57.5°	6325.5	6343.8	6731.5	7691.7	11167.1	16207.7	28596.8	40882.5	41838.6	40955.6	37049.8
60°	5854.6	5927.6	6309.3	7021.8	9869.9	13798.0	26851.0	41802.1	42705.5	41919.8	38010.0
62°	5590.7	5608.9	5907.3	6605.7	8865.1	12056.3	24676.9	41854.9	43010.0	42512.6	38600.8
62.5°	5513.5	5525.7	5807.9	6500.1	8658.0	11711.2	24084.1	41812.3	42991.7	42616.1	38730.7
65°	5071.0	5099.4	5353.2	6000.7	7750.6	10365.3	21307.1	41116.0	42599.9	42441.6	38718.5
67.5°	4533.0	4541.1	4811.1	5393.8	6814.8	9100.6	17896.6	39784.3	40681.5	40476.5	37023.4
70°	3706.8	3855.0	4149.4	4662.9	5637.4	7549.6	13613.3	35636.9	37108.7	37311.7	33986.5
72.5°	2817.7	2807.5	2911.0	3268.3	4106.7	5799.8	9189.9	29859.5	33269.9	34368.2	30635.0
75°	1739.7	1806.7	2241.1	2527.4	2943.5	4090.5	5761.2	20785.3	28448.7	30346.7	27078.4
77.5°	1352.0	1364.2	1589.5	2084.8	2411.7	2898.9	3593.1	11325.5	17833.7	22553.5	21089.8
80°	1029.2	1051.5	1199.7	1307.3	1697.1	1766.1	2397.4	5858.6	8122.1	11376.2	14167.5
82.5°	621.2	655.7	793.7	856.7	935.8	885.1	1289.1	3160.7	4502.6	5822.1	7214.7
85°	312.6	375.6	527.8	499.4	424.3	391.8	552.2	1528.6	2151.8	2848.1	3311.0
87.5°	79.2	95.4	123.8	148.2	125.9	103.5	150.2	414.1	426.3	408.0	1142.9
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°	9886.2	9886.2	9886.2	9886.2	9886.2	9886.2	9886.2	9886.2	9886.2	9886.2	9886.2
2.5°	9902.4	9819.2	9666.9	9579.6	9362.4	9279.2	9122.9	9179.7	9145.2	9110.7	9112.7
5°	9918.7	9768.4	9478.1	9269.1	8954.4	8794.0	8589.0	8556.5	8467.2	8412.4	8418.5
7.5°	9953.2	9738.0	9327.9	8995.0	8552.5	8300.7	8026.7	7980.0	7846.0	7785.1	7793.2
10°	10040.5	9786.7	9230.5	8741.3	8241.9	7892.7	7572.0	7468.4	7340.5	7271.5	7267.5
12.5°	10174.4	9859.8	9092.4	8548.4	7941.4	7488.7	7119.3	6952.8	6770.1	6709.2	6715.3
15°	10387.6	9953.2	8976.7	8282.5	7578.1	7107.1	6650.3	6449.4	6256.5	6185.5	6179.4
17.5°	10647.4	10038.4	8895.5	7969.8	7263.4	6699.1	6297.1	6023.1	5698.3	5651.6	5600.8
20°	10905.3	10209.0	8822.5	7742.5	6889.9	6289.0	5763.2	5483.1	5018.2	4843.6	4780.7
22.5°	11280.8	10478.9	8812.3	7472.5	6514.3	5840.4	5131.9	4679.2	4167.6	3871.2	3806.3
25°	11782.2	10775.3	8838.7	7267.5	6094.1	5269.9	4313.8	3660.1	3172.9	2838.0	2768.9
27.5°	12433.9	11179.3	8917.9	7042.1	5712.5	4585.8	3396.2	2724.3	2312.2	2032.0	1967.1
30°	13394.1	11857.3	9041.7	6833.0	5156.2	3694.6	2496.9	1963.0	1642.3	1469.7	1467.7
32.5°	15635.2	13371.7	9112.7	6573.2	4638.6	2793.3	1796.6	1421.0	1165.2	1100.3	1155.1
35°	18205.2	15517.4	9660.9	6293.1	3828.6	2054.4	1283.0	1010.9	905.4	921.6	952.1
37.5°	20576.3	17579.9	10497.2	5838.3	3065.3	1447.4	921.6	803.9	781.6	840.4	895.2
40°	22675.3	19362.3	11213.8	5338.9	2168.1	1010.9	738.9	743.0	720.7	747.0	765.3
42.5°	24733.7	21014.7	11971.0	4667.0	1445.4	747.0	667.9	704.4	678.0	682.1	655.7
45°	26780.0	22758.5	12297.8	3836.7	968.3	647.6	625.2	667.9	665.8	649.6	611.0
47.5°	28546.1	23960.3	12712.0	2894.8	720.7	588.7	594.8	625.2	645.5	617.1	598.9
50°	30064.6	25235.1	12393.3	1916.3	643.5	550.1	572.5	572.5	604.9	556.2	533.9
52.5°	31516.0	26503.9	11575.2	1262.7	590.7	523.7	546.1	531.9	546.1	497.4	491.3
55°	32386.9	27159.6	10586.5	984.6	558.3	501.4	511.6	507.5	495.3	444.6	454.7
57.5°	33345.1	27914.8	9356.3	826.2	544.0	475.0	477.1	471.0	434.4	399.9	401.9
60°	34110.4	28479.1	8040.9	728.8	527.8	460.8	432.4	422.2	371.5	351.2	353.2
62°	34646.3	28505.5	6893.9	678.0	507.5	450.7	406.0	383.7	326.8	310.6	308.6
62.5°	34705.2	28406.0	6613.8	665.8	499.4	446.6	404.0	371.5	314.7	302.5	298.4
65°	34485.9	27299.7	5276.0	598.9	464.9	422.2	375.6	322.8	270.0	253.8	247.7
67.5°	32853.8	25318.4	4029.6	544.0	422.2	406.0	347.1	284.2	239.5	219.2	215.2
70°	29670.7	22636.7	2876.5	475.0	379.6	369.5	349.2	259.8	221.3	192.9	188.8
72.5°	26134.4	19782.5	1956.9	422.2	337.0	304.5	257.8	245.6	207.1	170.5	166.5
75°	22240.9	15755.0	1392.6	363.4	290.3	257.8	217.2	227.4	194.9	152.3	148.2
77.5°	17064.3	11587.3	1033.3	298.4	225.3	209.1	182.7	201.0	176.6	138.0	136.0
80°	11652.3	8002.3	734.9	225.3	148.2	148.2	154.3	172.6	156.3	123.8	121.8
82.5°	6550.9	4212.3	434.4	162.4	101.5	101.5	119.8	140.1	129.9	107.6	105.6
85°	2714.1	1524.5	229.4	101.5	67.0	69.0	85.3	103.5	101.5	85.3	83.2
87.5°	944.0	383.7	67.0	34.5	28.4	30.5	34.5	48.7	48.7	42.6	44.7
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)