

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: P237555

Luminaire Tested: **CTN-8-6-D-E1-T2-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237555
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-T2-7030-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 55362 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B4 - U0 - G5

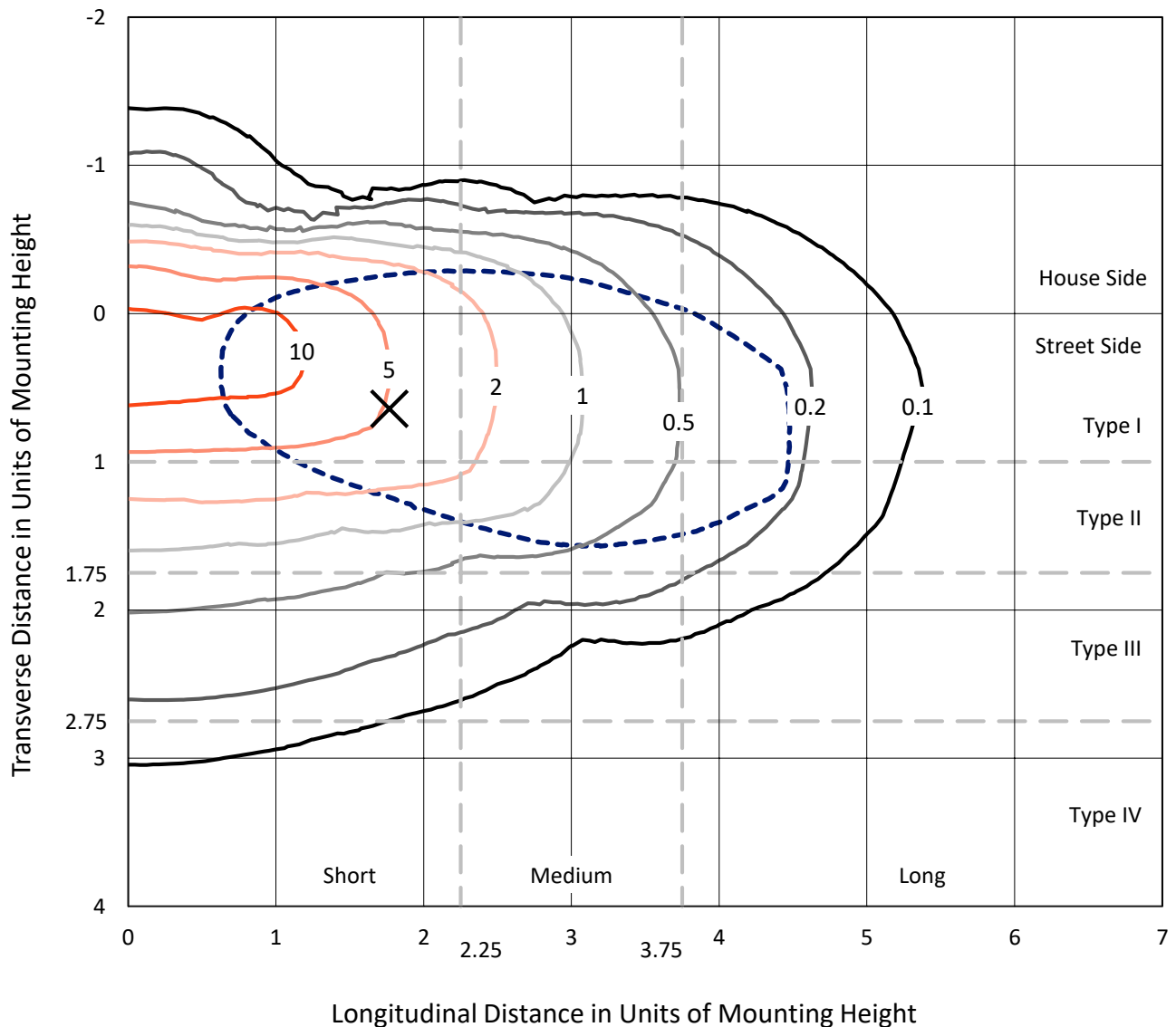
Input Watts (W): 477
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

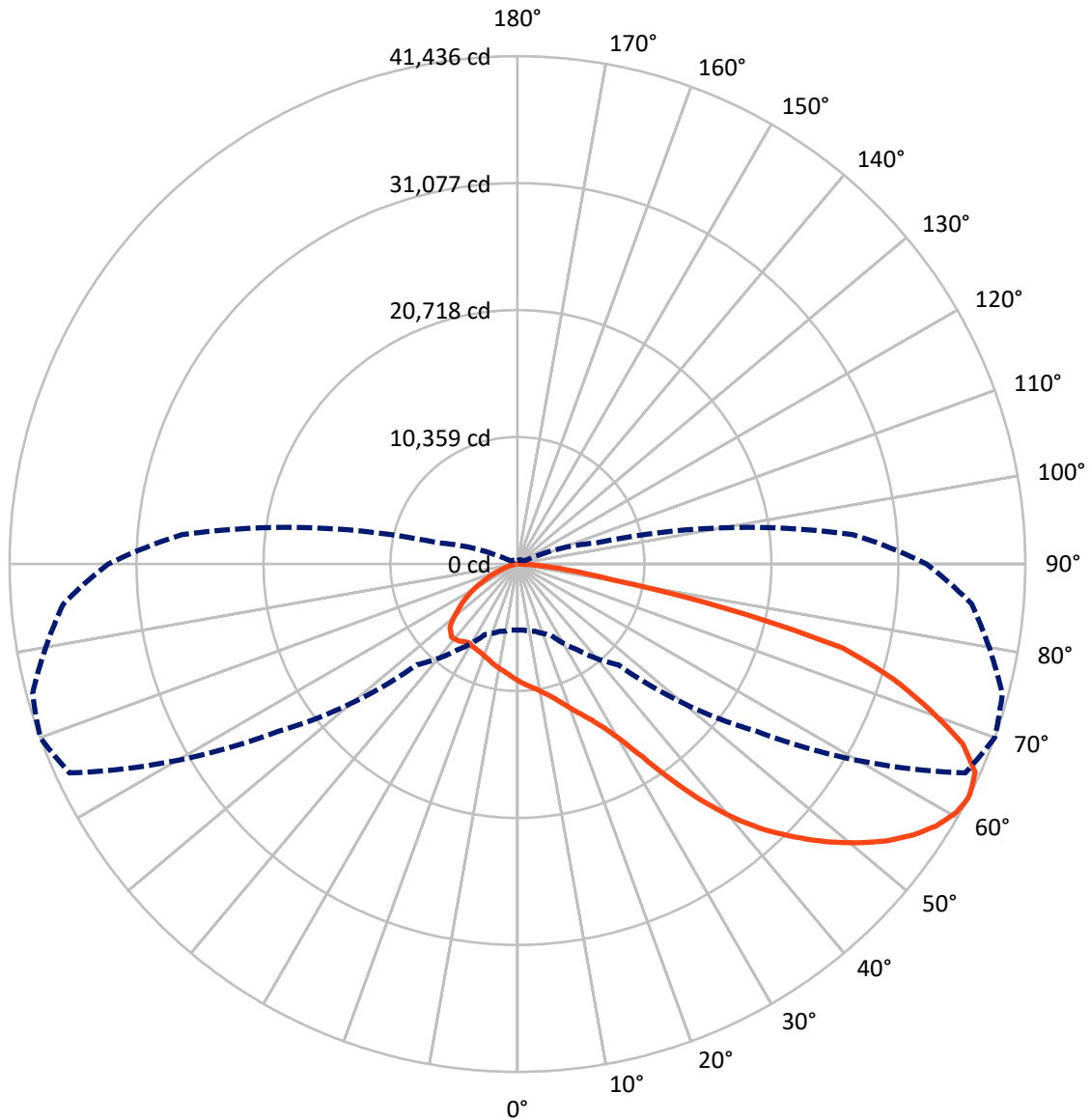
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.7 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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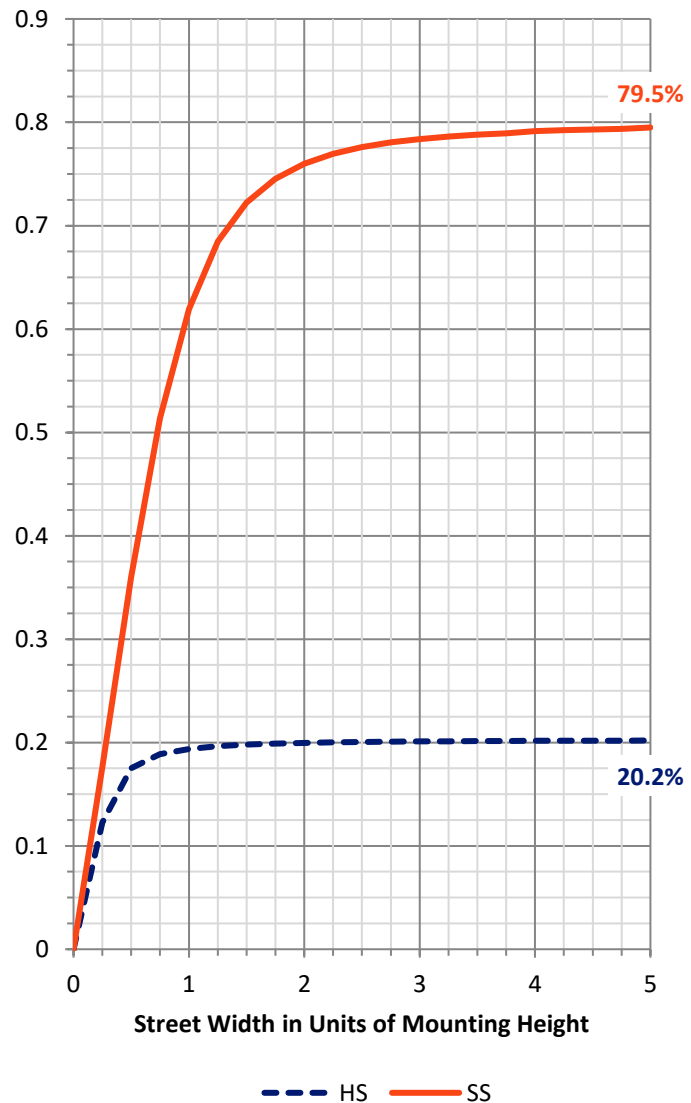
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11324.8	0.0	11324.8
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	44037.2	0.0	44037.2
	% Fixture	79.5	0.0	79.5
Total	Lumens	55362.0	0.0	55362.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	907.2	1.6
10°-20°	2760.2	5.0
20°-30°	4647.1	8.4
30°-40°	7017.0	12.7
40°-50°	9840.1	17.8
50°-60°	11500.7	20.8
60°-70°	11157.8	20.2
70°-80°	6522.8	11.8
80°-90°	1009.0	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°	55362.0	100.0
0°-180°	55362.0	100.0



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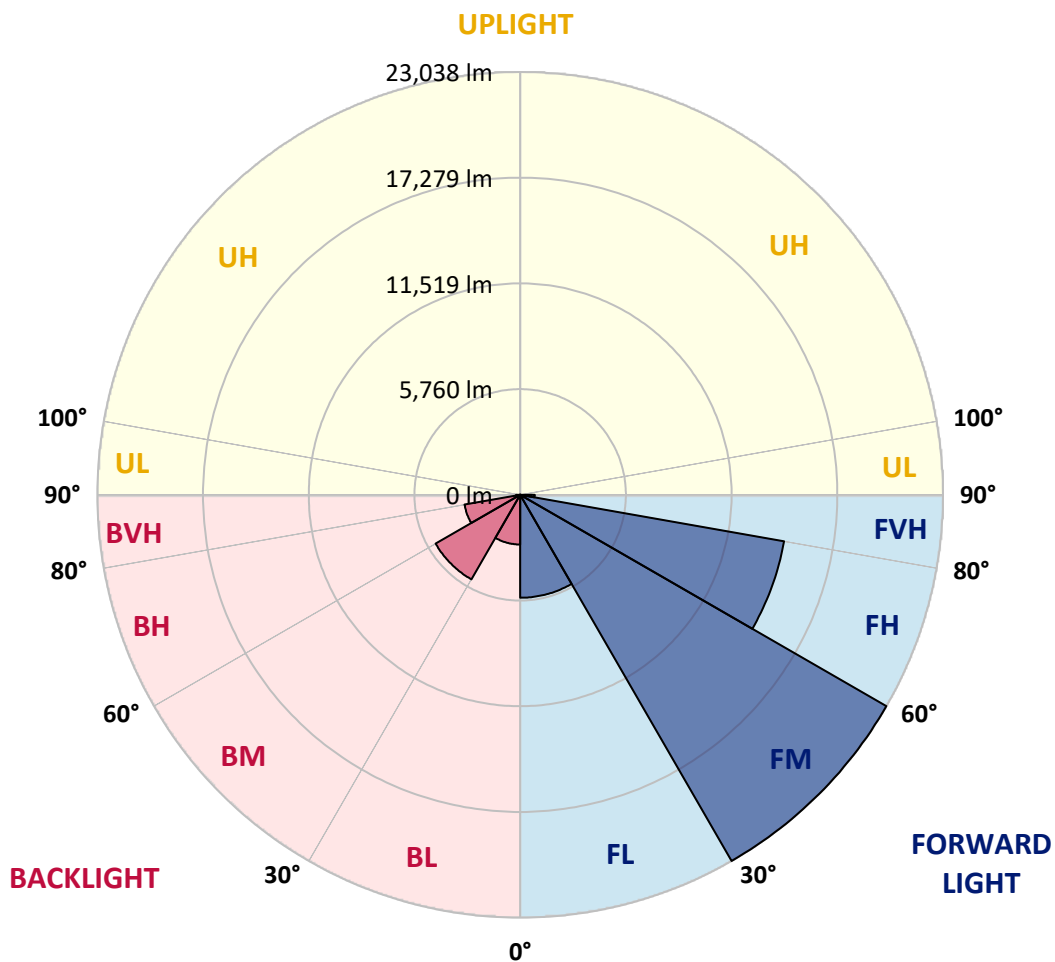
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5607.0	10.1			
FM	(30°-60°)	23038.2	41.6			
FH	(60°-80°)	14601.4	26.4			G5
FVH	(80°-90°)	790.7	1.4			G5
BL	(0°-30°)	2707.6	4.9	B4/5000		
BM	(30°-60°)	5319.6	9.6	B4/8500		
BH	(60°-80°)	3079.2	5.6	B4/5000		G4/5000
BVH	(80°-90°)	218.3	0.4			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	9524.4	9524.4	9524.4	9524.4	9524.4	9524.4	9524.4	9524.4	9524.4	9524.4	9524.4
2.5°	10336.0	10267.6	10238.2	10281.3	9993.8	9999.6	9860.8	9839.3	9772.8	9678.9	9575.2
5°	10926.6	10846.5	10805.4	10830.8	10527.7	10474.9	10248.0	10136.5	10005.5	9888.2	9663.2
7.5°	11493.8	11411.7	11380.4	11366.7	11001.0	10920.8	10631.3	10433.8	10255.8	10105.2	9800.1
10°	12064.9	11980.8	11916.2	11933.8	11550.5	11407.7	11073.3	10801.5	10572.7	10377.1	9956.6
12.5°	12632.0	12530.3	12459.9	12459.9	12082.5	11943.6	11568.1	11220.0	10928.6	10682.2	10154.1
15°	13212.9	13079.9	13064.2	13064.2	12663.3	12495.1	12125.5	11740.2	11382.3	11065.5	10392.7
17.5°	13813.3	13645.1	13641.2	13666.6	13298.9	13109.2	12761.1	12401.3	11945.6	11544.7	10684.1
20°	14208.3	14057.8	14022.6	14098.8	13809.4	13686.2	13312.6	13060.3	12622.3	12145.1	11059.6
22.5°	14509.5	14417.6	14450.9	14576.0	14435.2	14329.6	13936.5	13709.6	13314.6	12825.7	11566.2
25°	14812.7	14752.0	14828.3	15049.3	15061.0	15090.4	14761.8	14472.4	14104.7	13668.6	12225.2
27.5°	14718.8	14701.2	14932.0	15387.7	15638.0	15771.0	15587.1	15485.4	15149.1	14689.5	13054.5
30°	14787.2	14744.2	15021.9	15598.9	16156.3	16541.5	16541.5	16772.3	16625.6	16164.1	14319.8
32.5°	14583.8	14503.7	14822.4	15649.7	16608.0	17357.1	17689.5	18507.0	18763.2	18597.0	16829.0
35°	13647.1	13707.7	14331.6	15446.3	16919.0	18155.0	19035.1	20787.4	21575.6	21763.3	19717.6
37.5°	13062.3	13087.7	13723.3	15113.9	17028.5	18939.3	20507.7	23419.8	24536.5	24651.9	22252.3
40°	12256.5	12352.4	13064.2	14667.9	16965.9	19602.2	22093.8	26015.1	27257.0	27161.1	24470.0
42.5°	11620.9	11648.3	12270.2	13960.0	16692.1	20130.3	23693.6	28371.7	29672.3	29404.3	26662.4
45°	10828.9	10879.7	11468.4	13079.9	16205.1	20398.2	25074.4	30581.7	31772.7	31438.3	28561.4
47.5°	9870.5	10093.5	10709.6	12131.4	15379.8	20370.8	26243.9	32494.4	33853.6	33339.3	30337.2
50°	7950.0	8221.9	9454.0	11276.7	14298.3	19987.5	27174.8	34600.7	35764.4	35246.1	31958.5
52.5°	6944.8	6997.6	7625.4	10316.5	13031.0	19130.9	27808.5	36341.3	37553.9	37008.2	33517.2
55°	6491.1	6545.8	6862.6	8761.7	11867.3	17613.3	28041.2	38001.7	39077.4	38451.5	34802.1
57.5°	6094.0	6111.6	6485.2	7410.2	10758.4	15614.5	27550.3	39386.4	40307.5	39456.8	35694.0
60°	5640.3	5710.7	6078.4	6764.9	9508.7	13293.1	25868.4	40272.3	41142.6	40385.7	36619.0
62°	5386.1	5403.7	5691.2	6363.9	8540.7	11615.1	23773.8	40323.2	41436.0	40956.8	37188.1
62.5°	5311.8	5323.5	5595.3	6262.2	8341.2	11282.6	23202.7	40282.1	41418.4	41056.6	37313.3
65°	4885.4	4912.8	5157.2	5781.1	7467.0	9985.9	20527.3	39611.3	41040.9	40888.4	37301.6
67.5°	4367.1	4375.0	4635.1	5196.4	6565.4	8767.5	17241.7	38328.3	39192.7	38995.2	35668.5
70°	3571.2	3713.9	3997.5	4492.3	5431.1	7273.3	13115.1	34332.8	35750.7	35946.2	32742.8
72.5°	2714.5	2704.8	2804.5	3148.7	3956.4	5587.5	8853.6	28766.8	32052.4	33110.4	29513.9
75°	1676.1	1740.6	2159.1	2434.9	2835.8	3940.8	5550.4	20024.7	27407.5	29236.1	26087.4
77.5°	1302.5	1314.2	1531.3	2008.5	2323.4	2792.8	3461.6	10911.0	17181.1	21728.1	20318.0
80°	991.6	1013.1	1155.8	1259.5	1635.0	1701.5	2309.7	5644.2	7824.9	10959.9	13649.0
82.5°	598.5	631.7	764.7	825.3	901.6	852.7	1241.9	3045.1	4337.8	5609.0	6950.7
85°	301.2	361.8	508.5	481.1	408.7	377.5	532.0	1472.7	2073.1	2743.9	3189.8
87.5°	76.3	91.9	119.3	142.8	121.3	99.7	144.7	399.0	410.7	393.1	1101.1
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°	9524.4	9524.4	9524.4	9524.4	9524.4	9524.4	9524.4	9524.4	9524.4	9524.4	9524.4
2.5°	9540.0	9459.8	9313.2	9229.1	9019.8	8939.6	8789.0	8843.8	8810.5	8777.3	8779.3
5°	9555.7	9411.0	9131.3	8929.8	8626.7	8472.2	8274.7	8243.4	8157.3	8104.5	8110.4
7.5°	9588.9	9381.6	8986.6	8665.8	8239.5	7997.0	7732.9	7688.0	7558.9	7500.2	7508.0
10°	9673.0	9428.6	8892.7	8421.4	7940.2	7603.9	7294.9	7195.1	7071.9	7005.4	7001.5
12.5°	9802.1	9499.0	8759.7	8235.6	7650.8	7214.7	6858.7	6698.4	6522.3	6463.7	6469.5
15°	10007.5	9588.9	8648.2	7979.4	7300.7	6847.0	6407.0	6213.3	6027.5	5959.1	5953.2
17.5°	10257.8	9671.1	8570.0	7678.2	6997.6	6453.9	6066.7	5802.6	5489.7	5444.7	5395.8
20°	10506.2	9835.3	8499.6	7459.1	6637.7	6058.8	5552.3	5282.4	4834.6	4666.4	4605.7
22.5°	10868.0	10095.5	8489.8	7199.0	6275.9	5626.6	4944.1	4507.9	4015.1	3729.6	3667.0
25°	11351.0	10381.0	8515.2	7001.5	5871.1	5077.1	4155.9	3526.2	3056.8	2734.1	2667.6
27.5°	11978.8	10770.2	8591.5	6784.4	5503.4	4418.0	3271.9	2624.6	2227.6	1957.7	1895.1
30°	12903.9	11423.4	8710.8	6583.0	4967.5	3559.4	2405.5	1891.2	1582.2	1415.9	1414.0
32.5°	15063.0	12882.4	8779.3	6332.6	4468.8	2691.1	1730.8	1369.0	1122.6	1060.0	1112.8
35°	17539.0	14949.6	9307.3	6062.8	3688.5	1979.2	1236.0	974.0	872.3	887.9	917.2
37.5°	19823.2	16936.6	10113.1	5624.7	2953.1	1394.4	887.9	774.5	753.0	809.7	862.5
40°	21845.5	18653.7	10803.4	5143.6	2088.7	974.0	711.9	715.8	694.3	719.7	737.3
42.5°	23828.6	20245.7	11532.9	4496.2	1392.5	719.7	643.4	678.6	653.2	657.1	631.7
45°	25799.9	21925.6	11847.8	3696.3	932.9	623.9	602.4	643.4	641.5	625.8	588.7
47.5°	27501.4	23083.4	12246.8	2788.9	694.3	567.2	573.0	602.4	621.9	594.5	576.9
50°	28964.3	24311.6	11939.7	1846.2	620.0	530.0	551.5	551.5	582.8	535.9	514.4
52.5°	30362.6	25534.0	11151.5	1216.5	569.1	504.6	526.1	512.4	526.1	479.2	473.3
55°	31201.7	26165.7	10199.1	948.5	537.8	483.1	492.8	488.9	477.2	428.3	438.1
57.5°	32124.8	26893.2	9013.9	796.0	524.1	457.6	459.6	453.7	418.5	385.3	387.2
60°	32862.1	27436.9	7746.6	702.1	508.5	443.9	416.6	406.8	357.9	338.3	340.3
62°	33378.4	27462.3	6641.6	653.2	488.9	434.2	391.1	369.6	314.9	299.2	297.3
62.5°	33435.1	27366.5	6371.8	641.5	481.1	430.3	389.2	357.9	303.1	291.4	287.5
65°	33223.9	26300.6	5082.9	576.9	447.9	406.8	361.8	311.0	260.1	244.5	238.6
67.5°	31651.5	24391.8	3882.1	524.1	406.8	391.1	334.4	273.8	230.8	211.2	207.3
70°	28584.9	21808.3	2771.3	457.6	365.7	355.9	336.4	250.3	213.2	185.8	181.9
72.5°	25178.0	19058.6	1885.3	406.8	324.7	293.4	248.4	236.6	199.5	164.3	160.4
75°	21426.9	15178.4	1341.6	350.1	279.7	248.4	209.3	219.0	187.7	146.7	142.8
77.5°	16439.8	11163.3	995.5	287.5	217.1	201.4	176.0	193.6	170.1	133.0	131.0
80°	11225.9	7709.5	708.0	217.1	142.8	142.8	148.6	166.2	150.6	119.3	117.3
82.5°	6311.1	4058.1	418.5	156.5	97.8	97.8	115.4	134.9	125.2	103.7	101.7
85°	2614.8	1468.8	221.0	97.8	64.5	66.5	82.1	99.7	97.8	82.1	80.2
87.5°	909.4	369.6	64.5	33.2	27.4	29.3	33.2	46.9	46.9	41.1	43.0
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)