

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: P237540

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237540
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-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 4000K LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 74627 lumens
Efficiency: N/A
Efficacy: 118.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B4 - U0 - G5

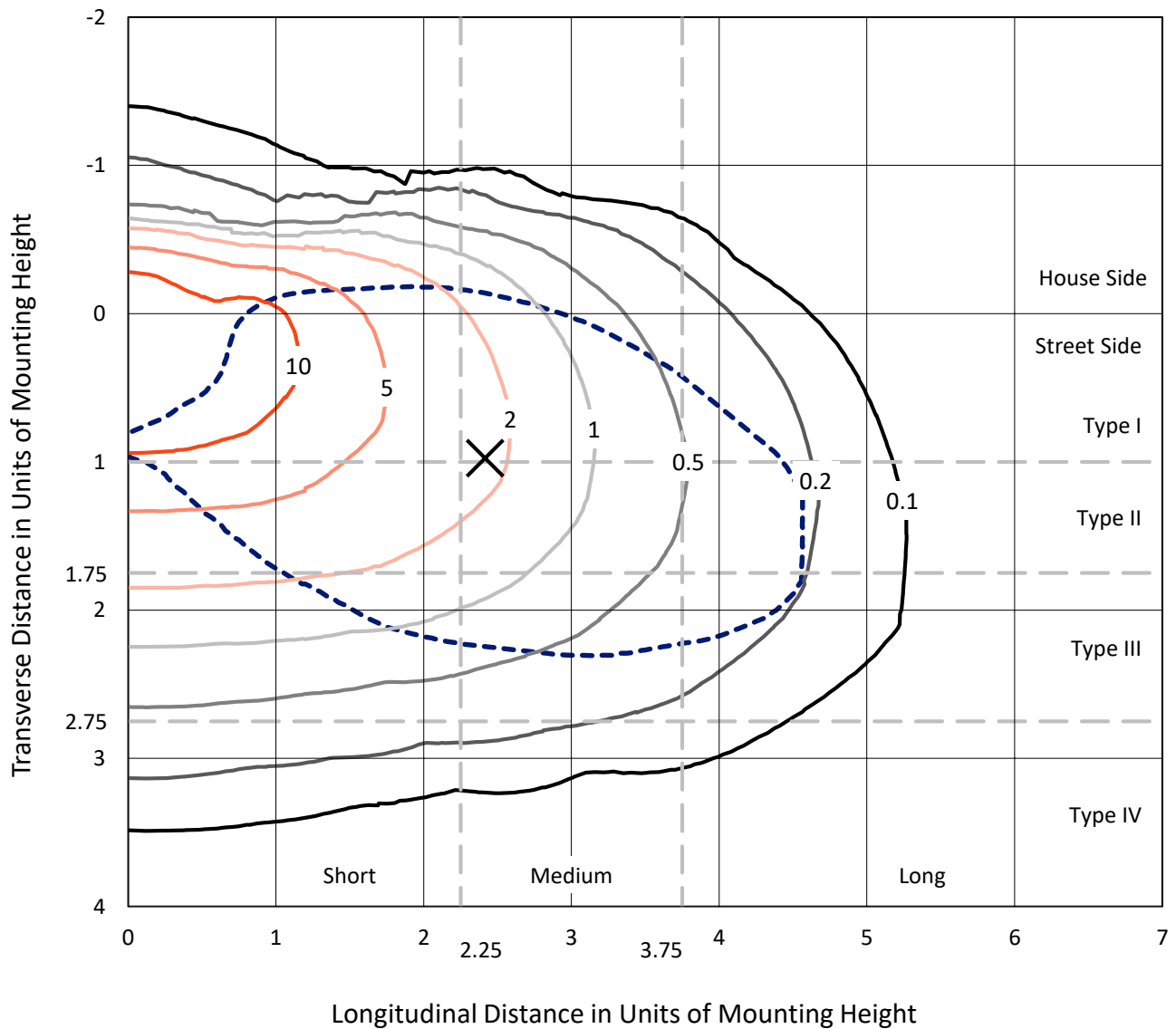
Input Watts (W): 631
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

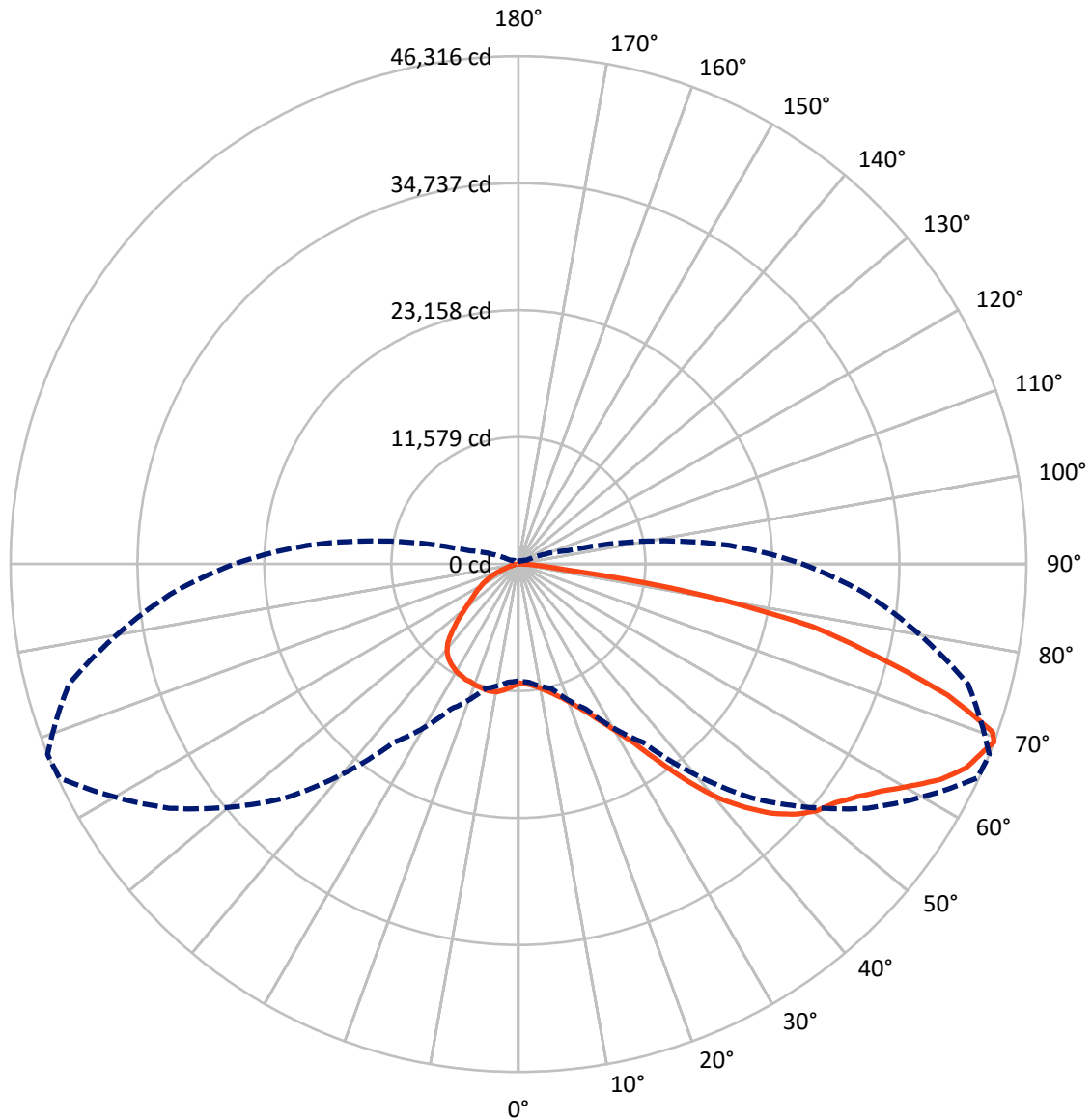
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.7 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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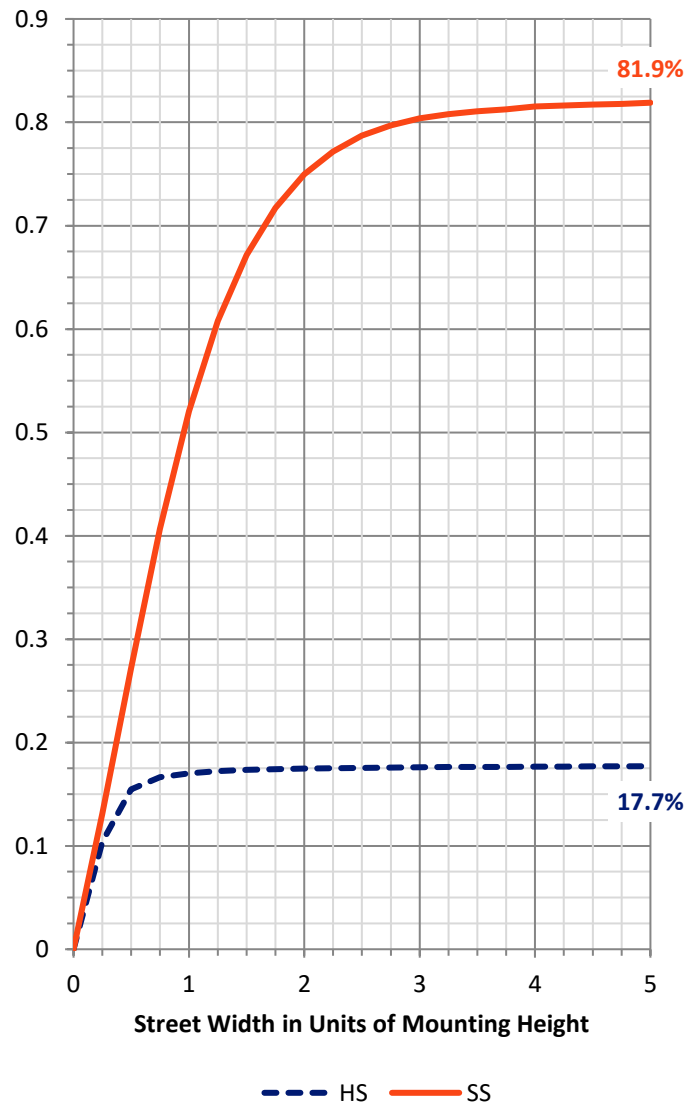
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13392.9	0.0	13392.9
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	61234.1	0.0	61234.1
	% Fixture	82.1	0.0	82.1
Total	Lumens	74627.0	0.0	74627.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1090.1	1.5
10°-20°	3420.8	4.6
20°-30°	5847.5	7.8
30°-40°	9010.4	12.1
40°-50°	12930.3	17.3
50°-60°	15562.2	20.9
60°-70°	16331.1	21.9
70°-80°	9461.1	12.7
80°-90°	973.5	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°	74627.0	100.0
0°-180°	74627.0	100.0



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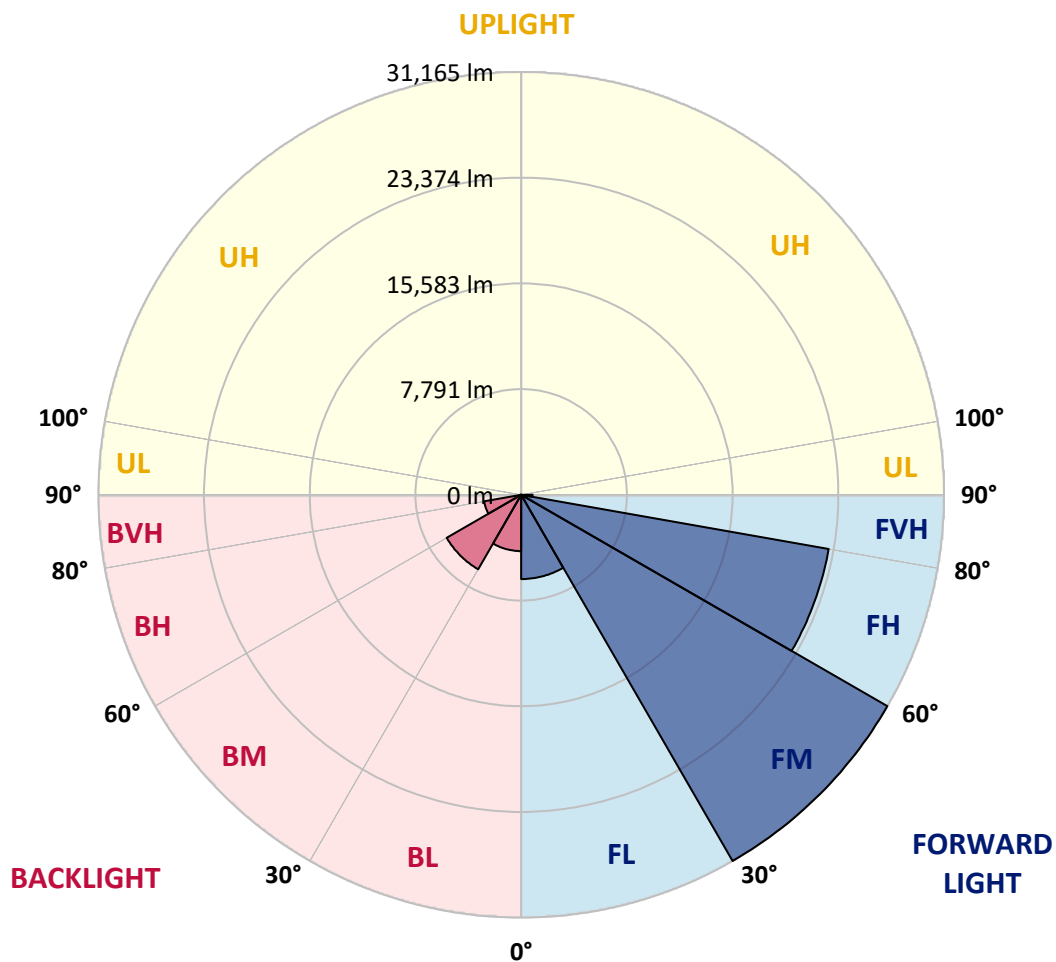
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	6208.6	8.3			
FM	(30°-60°)	31165.3	41.8			
FH	(60°-80°)	23014.2	30.8			G5
FVH	(80°-90°)	846.1	1.1			G5
BL	(0°-30°)	4149.8	5.6	B4/5000		
BM	(30°-60°)	6337.5	8.5	B4/8500		
BH	(60°-80°)	2778.1	3.7	B4/5000		G4/5000
BVH	(80°-90°)	127.4	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°	10854.9	10854.9	10854.9	10854.9	10854.9	10854.9	10854.9	10854.9	10854.9	10854.9	10854.9
2.5°	10976.4	10888.5	10898.8	10968.7	10761.8	10849.7	10795.4	10909.2	10927.3	10873.0	10922.1
5°	11193.6	11118.6	11116.0	11185.9	10955.7	11023.0	10937.6	11015.2	11038.5	10981.6	11066.9
7.5°	11615.1	11534.9	11519.4	11589.2	11297.0	11317.7	11201.4	11240.2	11260.8	11183.3	11268.6
10°	12220.1	12132.2	12075.3	12114.1	11785.7	11734.0	11534.9	11529.8	11560.8	11454.8	11591.8
12.5°	12897.6	12794.2	12711.4	12719.2	12344.3	12256.3	11992.6	11899.5	11920.2	11778.0	11943.5
15°	13634.5	13484.6	13407.0	13409.6	12988.1	12840.7	12502.0	12349.4	12336.5	12199.5	12295.1
17.5°	14521.4	14399.9	14301.7	14249.9	13802.6	13510.4	13107.1	12908.0	12835.6	12745.1	12695.9
20°	15563.5	15410.9	15307.5	15289.4	14741.2	14353.4	13818.1	13554.4	13469.1	13394.1	13174.3
22.5°	16724.5	16569.3	16427.1	16403.9	15822.1	15354.0	14635.2	14309.4	14234.4	14149.1	13709.5
25°	17795.0	17776.9	17619.1	17593.3	17032.2	16424.5	15581.6	15165.3	15165.3	15064.4	14389.6
27.5°	18989.6	19015.4	18873.2	18842.2	18314.7	17642.4	16639.2	16241.0	16323.7	16142.7	15245.4
30°	20248.8	20194.5	20155.7	20189.4	19700.7	18989.6	17944.9	17608.8	17738.1	17531.2	16393.5
32.5°	21376.2	21334.8	21360.7	21490.0	21138.3	20481.5	19584.3	19374.9	19499.0	19628.3	18451.8
35°	22268.3	22180.4	22506.2	22790.6	22689.8	22066.6	21345.2	21787.3	22128.7	22718.2	21484.8
37.5°	23054.3	22989.7	23385.3	23967.1	24093.8	23747.3	23524.9	24758.3	25148.8	25942.6	24145.5
40°	23447.4	23434.4	23920.6	24678.2	25192.7	25417.7	25808.1	27488.9	28057.7	28274.9	26170.1
42.5°	23320.7	23362.0	24220.5	25389.3	26221.9	27186.3	27972.4	29821.2	30343.5	30165.1	27944.0
45°	22966.4	22987.1	23858.5	25681.4	27113.9	29004.1	30053.9	31982.9	32445.7	31817.4	29355.8
47.5°	22475.1	22482.9	23403.4	25479.8	27843.1	30648.6	31848.4	33710.1	34085.1	33198.2	30372.0
50°	21810.6	21823.5	22922.5	25226.4	28471.4	31995.8	33252.5	35049.5	35339.1	34178.1	31251.1
52.5°	20970.2	21084.0	22286.4	24820.4	28864.5	32952.5	34315.2	36032.1	36174.3	35349.5	32029.4
55°	20000.6	20119.5	21477.1	24269.6	29017.0	33495.5	35059.9	37242.2	37469.8	36657.9	32662.9
57.5°	18852.5	19015.4	20445.3	23375.0	28660.2	33723.1	35817.5	38736.8	39044.5	38025.7	33314.5
60°	17520.9	17722.6	19227.5	22257.9	27835.4	33963.5	37234.5	40740.7	41097.6	39497.0	33883.4
62.5°	16129.8	16259.1	17619.1	20734.9	26514.0	34149.7	38760.1	43210.1	43241.1	40787.3	34198.8
65°	14268.0	14405.1	15623.0	18811.2	24530.8	33557.6	39530.6	44942.5	44849.4	41798.3	34092.8
67.5°	12137.4	12266.7	13262.2	16419.4	21808.0	31897.5	39266.9	45632.9	45695.0	42532.6	33076.6
69°	10658.4	10829.0	11767.6	14601.6	19884.2	30198.7	38824.7	46170.7	46315.5	42465.4	31900.1
70°	9393.9	9613.7	10505.8	12995.9	18255.2	28655.0	37971.4	45865.6	45876.0	41785.4	30816.7
72.5°	6135.9	6270.4	6425.5	8432.1	13132.9	22707.9	33601.5	40676.1	40945.0	37286.2	26943.3
75°	3035.6	3154.6	3733.8	4460.4	6753.9	15211.8	26640.7	33324.9	33834.2	31664.8	22074.4
77.5°	1675.6	1698.8	1903.1	2921.9	3501.1	6878.0	18208.7	26565.8	27457.8	25805.6	15853.1
80°	1044.6	1039.5	1086.0	1360.1	1962.6	3260.6	7690.0	14909.3	16512.5	13474.2	6265.2
82.5°	814.5	799.0	801.6	879.1	830.0	1535.9	3201.1	4341.4	4380.2	3888.9	2438.3
85°	416.3	470.6	558.5	584.4	491.3	835.2	1473.9	1714.3	1755.7	1538.5	1269.6
87.5°	139.6	142.2	150.0	147.4	131.9	287.0	545.6	636.1	566.3	320.6	434.4
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°	10854.9	10854.9	10854.9	10854.9	10854.9	10854.9	10854.9	10854.9	10854.9	10854.9	10854.9
2.5°	10997.1	10973.8	11020.4	11126.4	11038.5	11118.6	11038.5	11307.4	11276.4	11258.3	11310.0
5°	11149.7	11147.1	11222.1	11392.7	11385.0	11527.2	11449.6	11715.9	11677.1	11672.0	11718.5
7.5°	11356.5	11405.6	11485.8	11661.6	11664.2	11780.6	11692.7	11902.1	11816.8	11796.1	11860.7
10°	11672.0	11684.9	11747.0	11868.5	11697.8	11749.5	11604.7	11770.2	11651.3	11638.4	11734.0
12.5°	11974.5	11992.6	11899.5	11860.7	11640.9	11573.7	11320.3	11408.2	11271.2	11258.3	11304.8
15°	12297.7	12176.2	11953.8	11827.1	11447.0	11204.0	10919.5	10746.3	10511.0	10402.4	10443.8
17.5°	12633.9	12398.6	11982.3	11674.6	11165.2	10810.9	10244.7	9949.9	9600.8	9422.4	9388.8
20°	13001.0	12670.1	12052.1	11597.0	10880.7	10182.6	9492.2	8817.3	8419.1	8235.5	8186.4
22.5°	13414.8	13011.4	12150.3	11338.4	10436.0	9587.9	8421.7	7571.0	6991.8	6813.4	6764.3
25°	13931.9	13394.1	12284.8	11273.8	10009.4	8615.6	7165.1	6200.6	5525.7	5254.2	5197.3
27.5°	14560.2	13921.6	12504.6	10966.1	9259.5	7532.2	5916.1	4806.9	4106.1	3785.5	3715.7
30°	15475.6	14596.4	12652.0	10785.1	8592.4	6407.4	4597.4	3358.9	2694.3	2459.0	2397.0
32.5°	17280.4	15754.8	12951.9	10368.8	7607.2	5099.1	3164.9	2060.8	1595.4	1460.9	1409.2
35°	19961.8	17937.2	13383.7	9874.9	6500.5	3627.8	1879.8	1194.6	959.3	910.2	894.7
37.5°	22405.3	20091.1	14218.9	9114.7	5047.3	2231.5	1088.6	765.4	705.9	713.7	713.7
40°	24249.0	21691.7	15193.7	8111.4	3423.5	1251.5	747.3	636.1	649.0	651.6	649.0
42.5°	25976.2	23157.8	15664.3	7004.7	1983.3	830.0	649.0	592.1	602.5	594.7	589.5
45°	27333.7	24207.6	15804.0	5515.4	1086.0	742.1	610.2	550.8	545.6	550.8	555.9
47.5°	28215.5	24848.8	15485.9	4222.5	819.7	690.4	587.0	522.3	509.4	545.6	543.0
50°	28869.6	25288.4	14252.5	3211.5	799.0	646.4	558.5	488.7	493.9	537.8	532.7
52.5°	29345.4	25402.2	12900.2	2575.4	762.8	615.4	532.7	473.2	468.0	501.6	504.2
55°	29722.9	25097.1	12057.2	2027.2	731.8	584.4	512.0	457.7	431.8	442.2	439.6
57.5°	29958.2	24748.0	11095.4	1691.1	703.3	550.8	483.5	416.3	377.5	380.1	377.5
60°	29906.5	24515.3	9991.3	1385.9	667.1	519.7	444.7	372.3	333.6	323.2	323.2
62.5°	29803.1	24036.9	8850.9	1207.5	636.1	509.4	398.2	338.7	310.3	299.9	299.9
65°	29099.8	22896.6	7325.4	1034.3	605.1	480.9	372.3	325.8	292.2	281.8	281.8
67.5°	27354.4	21011.6	5673.1	899.8	581.8	434.4	364.6	318.0	281.8	268.9	268.9
69°	25880.5	19336.1	4659.5	827.4	558.5	413.7	364.6	320.6	276.7	261.2	261.2
70°	24729.9	18019.9	3855.3	783.5	535.2	400.8	364.6	323.2	274.1	256.0	253.4
72.5°	21221.1	14068.9	2141.0	664.5	444.7	364.6	356.8	325.8	261.2	235.3	232.7
75°	16282.3	9890.4	1274.8	561.1	374.9	333.6	338.7	312.9	240.5	212.0	212.0
77.5°	10174.8	4543.1	949.0	439.6	305.1	289.6	294.8	276.7	217.2	193.9	193.9
80°	3475.2	2050.5	716.2	338.7	219.8	225.0	243.1	232.7	193.9	175.8	173.2
82.5°	1903.1	1334.2	506.8	235.3	152.6	186.2	186.2	188.8	168.1	155.1	152.6
85°	1034.3	695.6	312.9	142.2	108.6	137.0	131.9	142.2	137.0	126.7	124.1
87.5°	359.4	237.9	103.4	51.7	44.0	46.5	54.3	72.4	69.8	72.4	75.0
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)