

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: P232802

Luminaire Tested: **CTN-8-4-D-E1-T2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232802
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-7)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-4-D-E1-T2-7050
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 5000K LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43534 lumens
Efficiency: N/A
Efficacy: 134.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B4 - U0 - G4

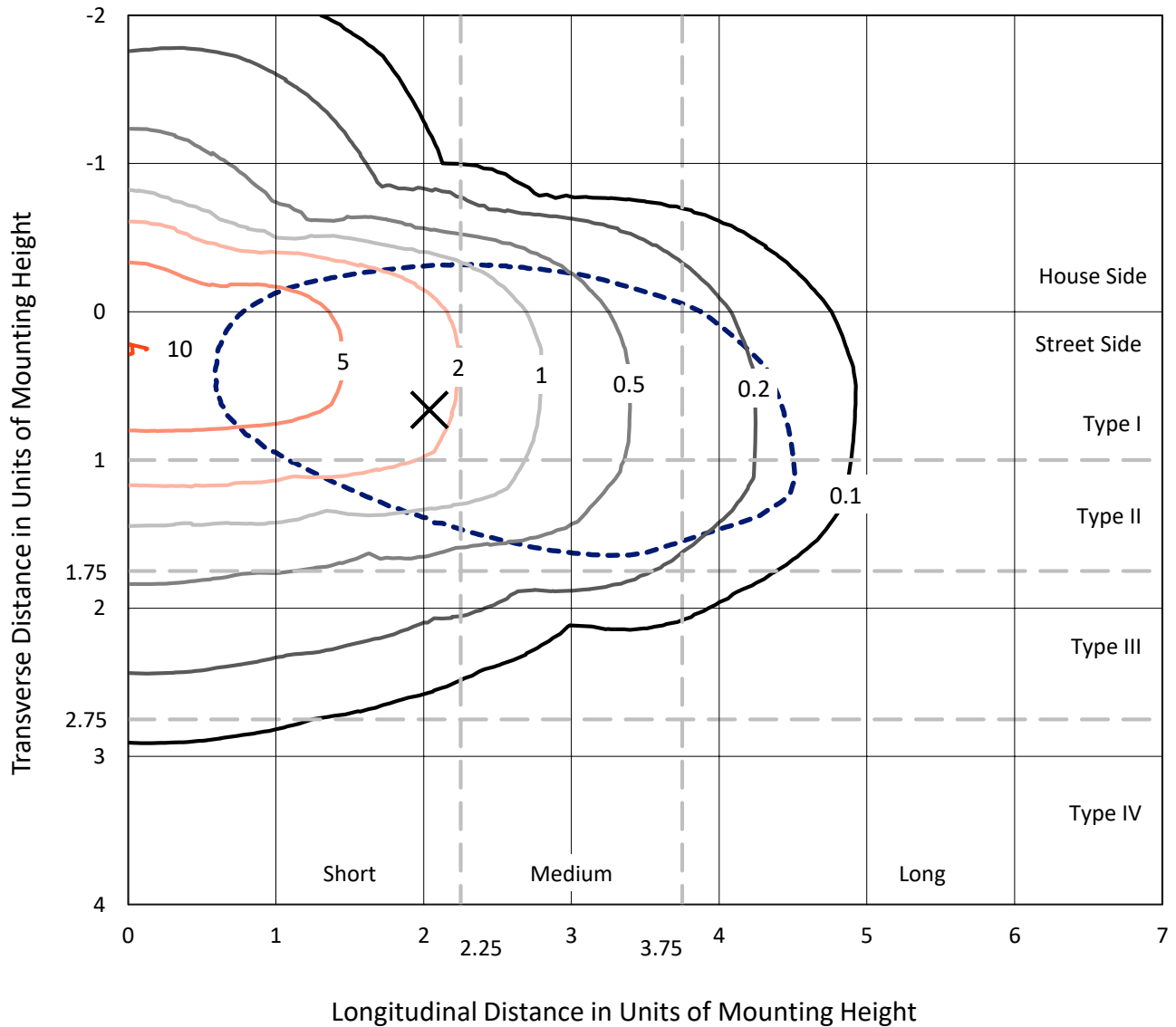
Input Watts (W): 325
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

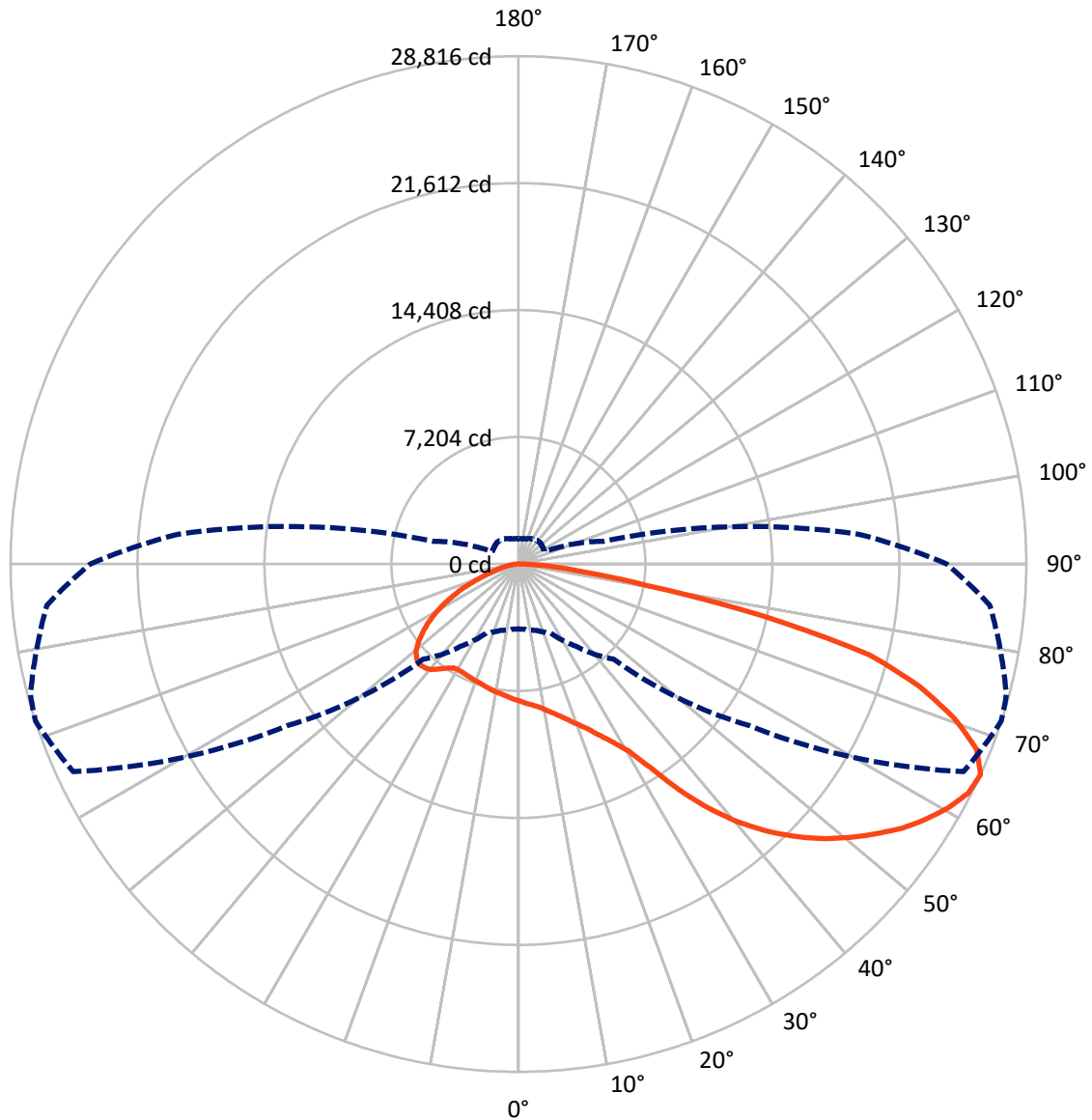


Based on 30 foot mounting height. Maximum calculated value = 10.1 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 72-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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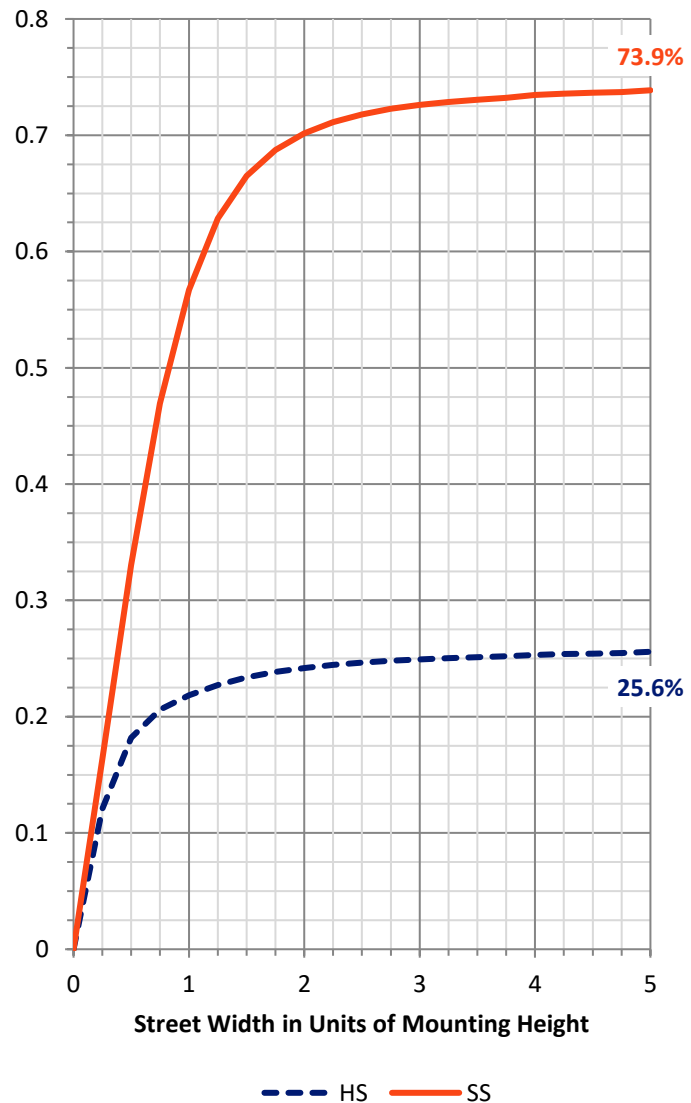
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11340.2	0.0	11340.2
	% Fixture	26.0	0.0	26.0
Street Side	Lumens	32193.8	0.0	32193.8
	% Fixture	74.0	0.0	74.0
Total	Lumens	43534.0	0.0	43534.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	747.2	1.7
10°-20°	2277.4	5.2
20°-30°	3814.7	8.8
30°-40°	5537.0	12.7
40°-50°	7487.2	17.2
50°-60°	8739.6	20.1
60°-70°	8701.8	20.0
70°-80°	5276.7	12.1
80°-90°	952.5	2.2
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°	43534.0	100.0
0°-180°	43534.0	100.0



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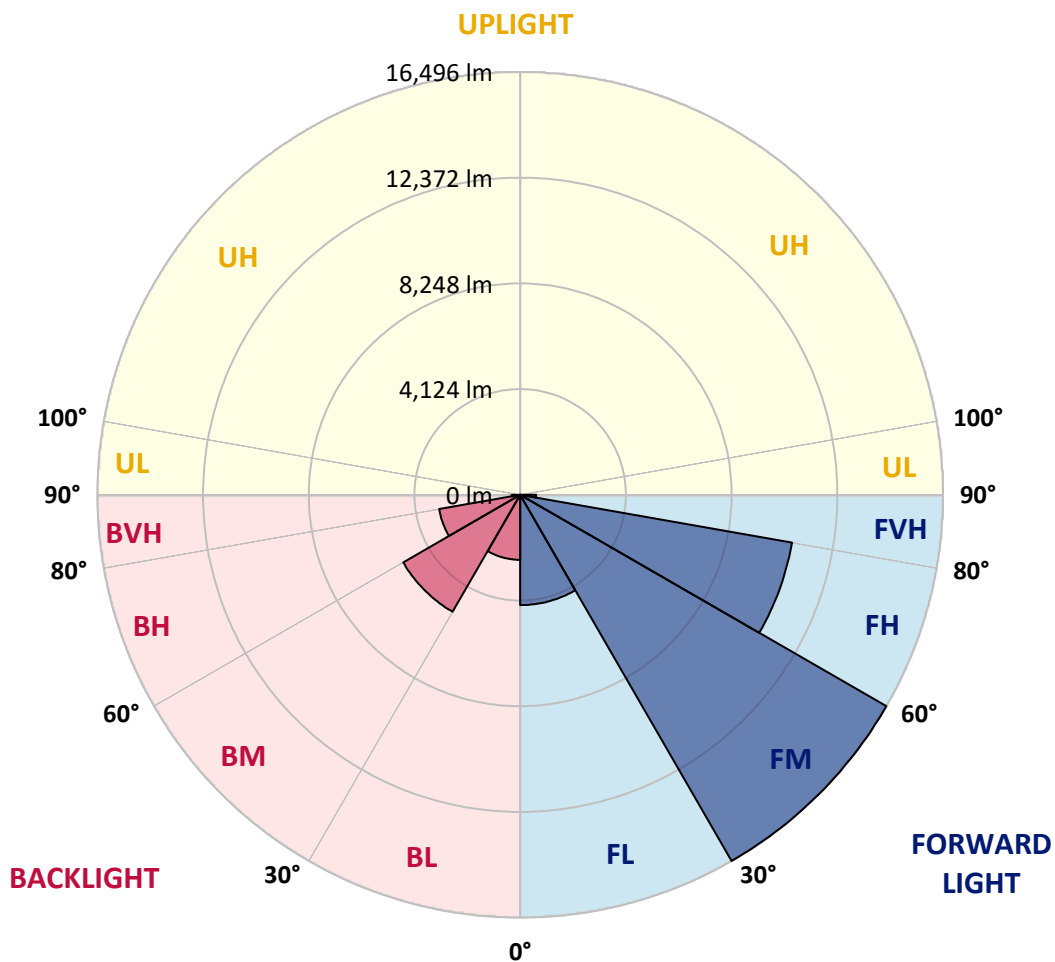
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4302.7	9.9			
FM	(30°-60°)	16496.0	37.9			
FH	(60°-80°)	10768.5	24.7			G4/12000
FVH	(80°-90°)	626.6	1.4			G4/750
BL	(0°-30°)	2536.5	5.8	B4/5000		
BM	(30°-60°)	5267.8	12.1	B4/8500		
BH	(60°-80°)	3209.9	7.4	B4/5000		G4/5000
BVH	(80°-90°)	325.9	0.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	7770.5	7770.5	7770.5	7770.5	7770.5	7770.5	7770.5	7770.5	7770.5	7770.5	7770.5
2.5°	8174.8	8159.2	8164.4	8171.9	8079.1	8063.6	7986.8	7947.7	7904.8	7874.6	7806.8
5°	8595.5	8594.1	8560.7	8561.1	8415.5	8359.5	8217.6	8113.0	8022.1	7975.0	7833.6
7.5°	8977.2	8937.6	8934.3	8924.9	8760.4	8670.9	8482.9	8324.1	8185.1	8112.6	7893.5
10°	9335.7	9307.9	9308.4	9297.1	9128.4	9016.7	8790.6	8590.8	8405.2	8311.4	7992.4
12.5°	9718.3	9686.7	9681.6	9642.0	9487.0	9379.5	9132.2	8886.7	8662.0	8555.9	8142.3
15°	10110.8	10080.6	10065.6	10019.9	9846.9	9732.5	9525.1	9221.7	8965.9	8833.9	8339.2
17.5°	10472.7	10454.3	10428.8	10393.5	10242.3	10116.9	9909.6	9621.3	9315.5	9146.8	8565.8
20°	10696.0	10680.0	10696.9	10696.9	10609.8	10518.8	10310.1	10062.7	9732.5	9523.7	8826.4
22.5°	10867.0	10850.5	10925.9	10964.1	10973.0	10952.8	10747.8	10532.0	10188.1	9972.7	9148.7
25°	10909.0	10910.8	11038.5	11210.0	11337.3	11396.6	11238.8	11080.0	10783.2	10513.6	9589.2
27.5°	10896.7	10909.0	11072.5	11378.7	11683.6	11827.7	11770.7	11678.4	11443.3	11213.8	10177.7
30°	10878.8	10910.8	11126.6	11503.1	11944.1	12229.6	12286.7	12426.6	12311.2	12154.7	11111.1
32.5°	10656.4	10685.2	10994.2	11549.3	12166.0	12684.3	12991.1	13584.3	13772.2	13741.6	12555.7
35°	10135.8	10192.3	10650.8	11428.2	12337.1	13147.5	13875.4	15117.4	15768.1	15715.8	14222.2
37.5°	9605.2	9674.5	10224.4	11202.5	12414.3	13640.3	14843.2	16831.5	17617.9	17541.6	15823.7
40°	9124.2	9203.8	9758.8	10864.2	12393.6	14101.1	15860.0	18442.5	19265.1	19129.4	17251.8
42.5°	8568.2	8683.6	9189.2	10413.3	12232.0	14425.8	16865.9	19981.8	20726.7	20519.4	18551.3
45°	8050.4	8143.2	8629.0	9795.6	11985.6	14664.6	17786.1	21408.0	22055.9	21814.1	19748.5
47.5°	7489.2	7607.0	8095.1	9160.0	11496.0	14718.4	18628.6	22675.0	23284.7	23033.1	20865.2
50°	6008.8	6198.7	7301.2	8538.0	10736.0	14523.3	19376.8	23863.3	24389.1	24190.2	22020.5
52.5°	5238.9	5276.1	5834.0	7824.2	9810.7	14013.0	19916.8	25028.9	25427.5	25224.9	23043.0
55°	4894.5	4904.9	5154.6	6622.3	8913.1	13041.0	20178.3	26145.1	26444.8	26164.0	24010.7
57.5°	4540.6	4598.6	4849.7	5588.5	8069.2	11638.3	19996.9	27121.4	27300.0	26983.8	24899.4
60°	4248.1	4295.2	4545.8	5047.6	7143.4	10007.6	19151.6	27899.3	28056.7	27733.9	25733.3
62.5°	3982.8	4017.2	4211.3	4681.5	6307.1	8561.6	17574.1	28107.5	28635.7	28378.9	26504.2
65°	3681.7	3713.3	3893.3	4312.6	5695.0	7636.2	15987.2	27873.4	28816.2	28660.7	26850.9
67.5°	3324.1	3366.5	3529.1	3890.4	5064.6	6839.5	14113.8	27279.2	28046.3	27807.4	26103.2
70°	2854.3	2923.6	3107.8	3421.2	4328.2	5812.8	11259.0	25326.2	26237.5	25964.7	24106.4
72.5°	2250.3	2265.4	2398.7	2659.3	3427.7	4624.0	7598.5	21430.1	23810.0	23732.7	21324.1
75°	1677.8	1729.2	1943.1	2143.8	2504.3	3317.5	4618.9	15619.2	20556.6	20556.6	17971.3
77.5°	1369.2	1396.1	1538.4	1707.0	1953.0	2328.0	2936.3	8825.5	14169.0	15606.0	13507.9
80°	1070.0	1060.6	1070.5	1146.4	1378.6	1539.3	1952.1	4535.9	7320.1	8320.8	8848.5
82.5°	586.1	586.6	650.7	613.5	760.5	865.1	1184.0	2551.4	3824.9	4247.1	4740.4
85°	296.8	289.8	322.8	301.1	352.0	394.8	537.6	1267.4	1952.1	2116.0	2233.8
87.5°	106.0	100.8	115.9	139.0	130.0	138.1	185.6	455.6	754.3	807.1	791.1
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°	7770.5	7770.5	7770.5	7770.5	7770.5	7770.5	7770.5	7770.5	7770.5	7770.5	7770.5
2.5°	7787.5	7742.2	7687.6	7641.9	7545.3	7494.9	7454.8	7466.1	7422.8	7360.1	7359.2
5°	7782.3	7696.1	7578.7	7481.7	7326.2	7246.1	7170.7	7150.9	7086.4	7024.2	7020.9
7.5°	7800.2	7685.7	7495.3	7340.3	7137.7	7012.9	6896.0	6850.3	6774.5	6709.0	6705.7
10°	7849.7	7698.4	7437.9	7223.0	6969.5	6798.5	6647.2	6555.4	6467.7	6400.3	6399.4
12.5°	7938.2	7736.1	7387.4	7107.1	6806.0	6579.4	6386.2	6267.5	6145.0	6095.0	6092.2
15°	8063.1	7791.2	7322.0	6953.0	6604.8	6346.6	6107.8	5950.9	5815.2	5767.1	5777.5
17.5°	8223.3	7881.2	7269.2	6782.9	6382.9	6071.5	5823.2	5665.3	5465.6	5421.3	5433.5
20°	8422.1	8020.2	7257.9	6627.5	6139.8	5769.0	5464.1	5352.5	5099.5	5040.1	5032.1
22.5°	8679.4	8184.2	7253.2	6461.1	5854.7	5421.3	5059.9	4918.1	4705.6	4605.7	4583.1
25°	8997.9	8374.1	7245.2	6294.8	5537.2	5025.0	4585.4	4386.1	4253.2	4102.0	4098.7
27.5°	9417.2	8629.0	7264.0	6129.9	5190.9	4562.8	4076.1	3834.4	3758.0	3660.0	3609.1
30°	10140.0	9083.2	7315.4	5930.6	4812.0	4030.8	3518.2	3334.9	3241.2	3141.7	3124.8
32.5°	11353.3	10066.0	7474.1	5714.8	4390.3	3455.5	3061.7	2869.9	2714.4	2663.0	2649.4
35°	12872.8	11233.1	7882.2	5483.9	3934.3	2999.9	2685.7	2432.6	2284.2	2272.0	2271.0
37.5°	14237.8	12477.9	8414.1	5199.3	3431.5	2674.8	2312.5	2094.3	1982.7	1994.0	2023.7
40°	15558.0	13582.4	8978.1	4915.7	2943.4	2330.9	1950.2	1845.6	1795.6	1836.1	1855.9
42.5°	16798.1	14591.1	9384.3	4530.8	2520.8	1961.5	1700.4	1762.2	1780.1	1813.5	1827.2
45°	17957.2	15624.9	9686.3	4067.1	2140.5	1700.9	1664.6	1771.1	1822.0	1847.9	1846.5
47.5°	19078.5	16612.9	9776.7	3454.1	1846.5	1672.2	1697.6	1758.4	1838.0	1885.6	1882.3
50°	20197.6	17511.9	9700.9	2831.2	1787.1	1727.8	1729.2	1719.3	1812.1	1850.7	1836.1
52.5°	21200.7	18351.5	9272.1	2369.5	1826.7	1786.2	1766.4	1716.5	1742.9	1769.7	1756.5
55°	22102.5	19052.2	8599.8	2141.9	1860.6	1823.9	1850.3	1753.2	1700.9	1678.3	1682.5
57.5°	22941.7	19592.6	7827.0	2000.6	1853.6	1814.9	1883.7	1743.3	1667.0	1571.8	1553.4
60°	23737.5	19947.4	6956.8	1878.5	1820.1	1801.7	1811.2	1743.8	1635.4	1512.0	1481.8
62.5°	24300.0	19966.2	5957.9	1769.7	1755.6	1781.5	1754.2	1730.1	1643.9	1550.1	1531.3
65°	24288.7	19379.6	4969.9	1644.8	1675.0	1727.3	1680.2	1600.6	1470.0	1442.2	1432.8
67.5°	23234.7	17895.0	4011.5	1459.7	1544.5	1654.3	1574.2	1444.6	1332.0	1299.0	1305.1
70°	20943.0	15795.9	2962.7	1183.1	1348.5	1529.9	1479.9	1335.8	1212.3	1186.4	1214.2
72.5°	18226.7	13569.2	2106.1	938.1	1120.0	1353.7	1333.9	1209.5	1101.1	1112.0	1136.9
75°	15216.8	10801.5	1545.0	807.1	879.2	1153.9	1203.8	1124.2	1055.4	1089.8	1088.9
77.5°	11341.0	7976.9	1176.5	677.1	728.0	898.0	1061.1	1030.9	1218.4	1480.9	1489.4
80°	7452.5	5179.1	793.9	556.0	595.6	673.8	866.0	993.2	1247.7	1081.3	1068.1
82.5°	4129.3	2748.8	492.4	432.5	447.1	488.6	627.6	1037.0	916.4	850.5	853.8
85°	1831.0	1064.4	290.7	290.2	291.2	296.4	402.8	786.4	644.6	624.3	634.7
87.5°	634.2	280.3	91.4	72.6	82.0	102.7	209.7	479.6	336.4	278.9	279.9
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)