

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: P232801

Luminaire Tested: **CTN-10-3-D-E1-T2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232801
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-10-3-D-E1-T2-7050
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 5000K LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31889 lumens
Efficiency: N/A
Efficacy: 150.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 212
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

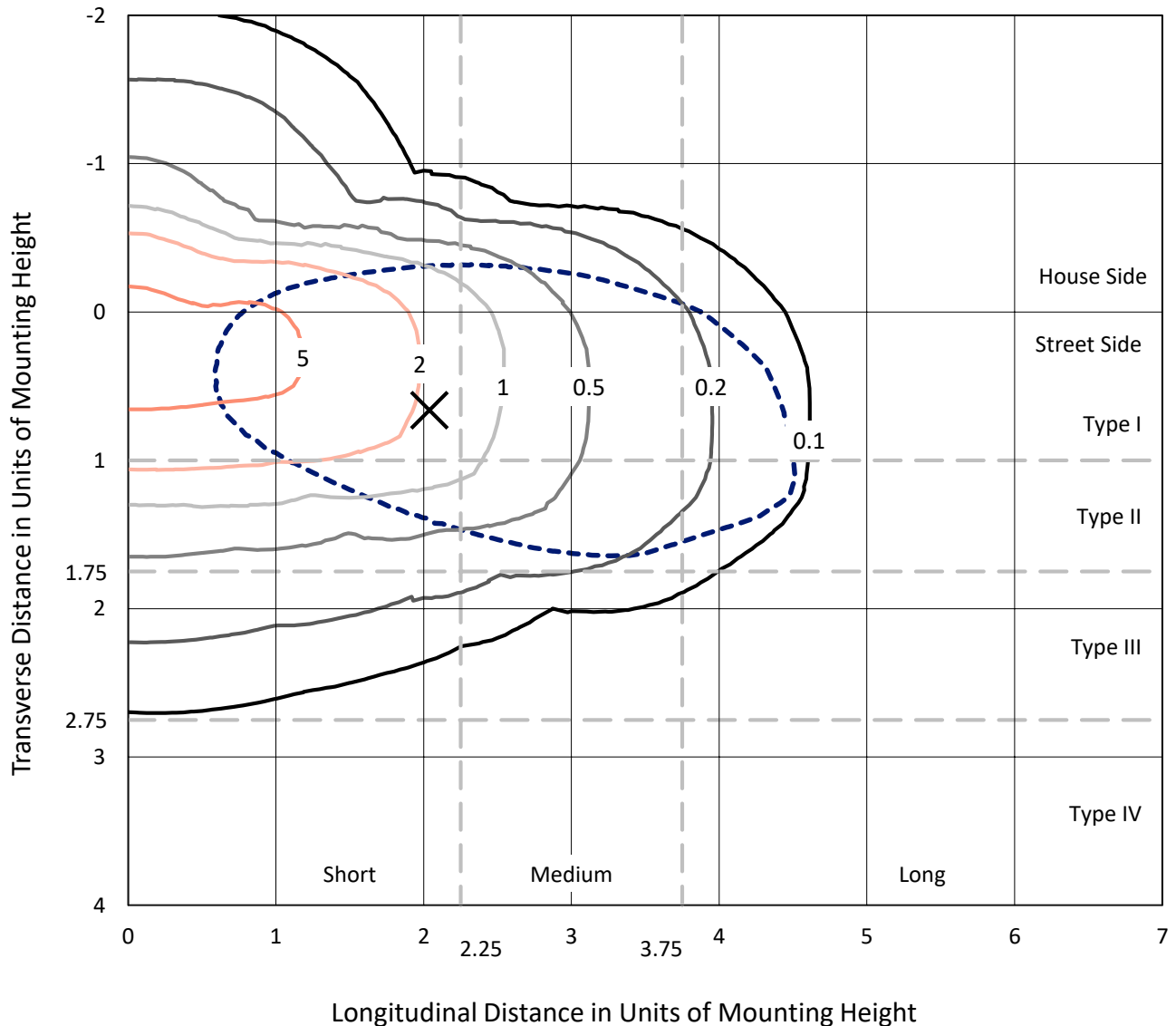


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Iso-Footcandle Lines of Horizontal Illumination

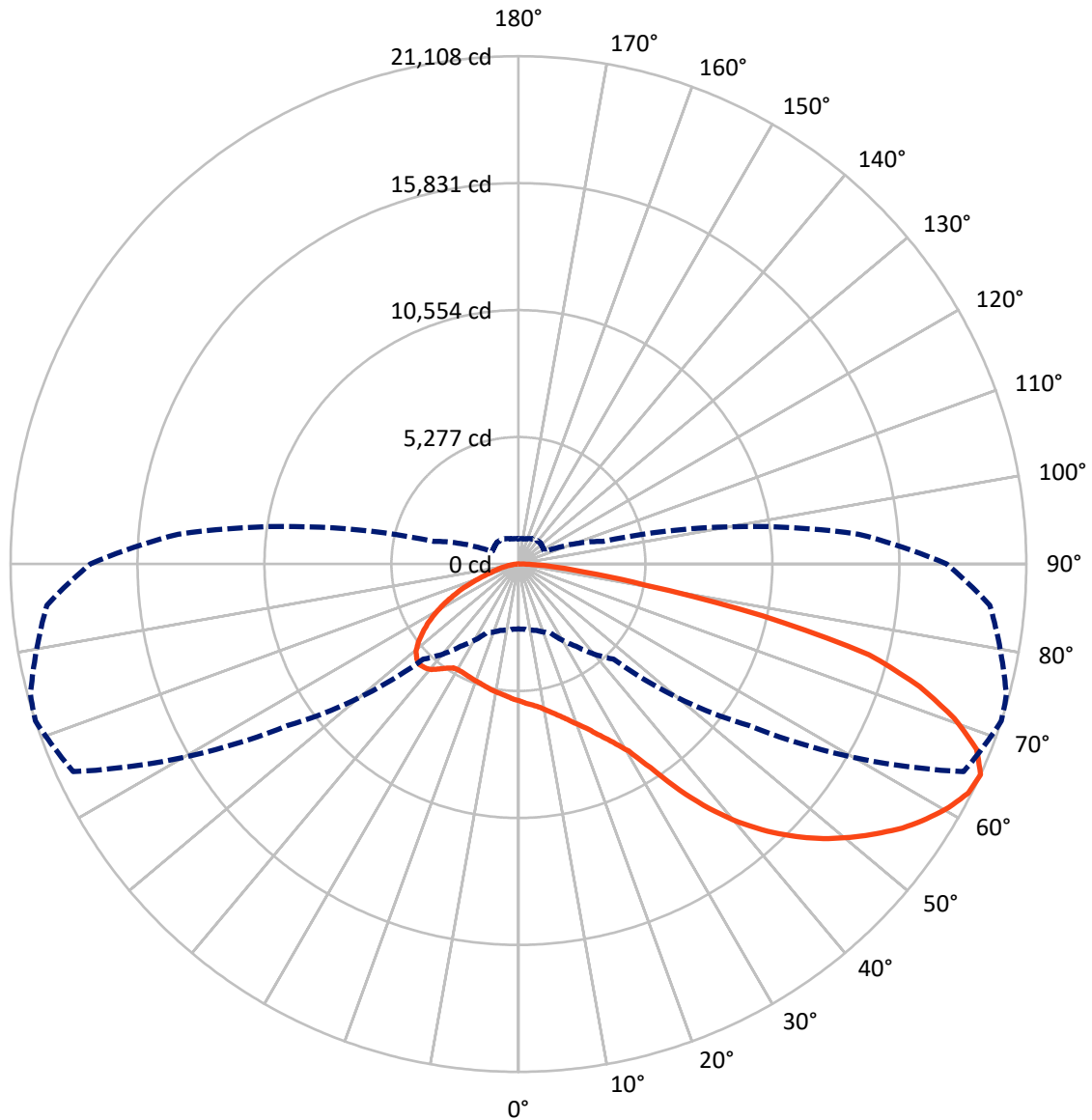
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.4 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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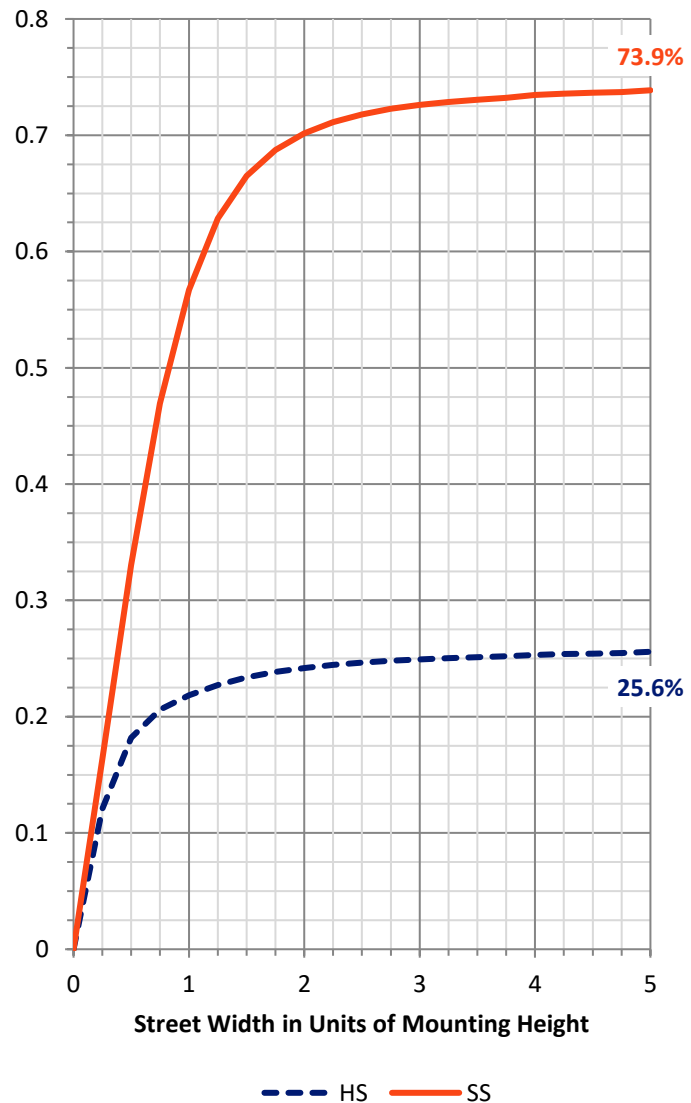
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8306.8	0.0	8306.8
	% Fixture	26.0	0.0	26.0
Street Side	Lumens	23582.2	0.0	23582.2
	% Fixture	74.0	0.0	74.0
Total	Lumens	31889.0	0.0	31889.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	547.3	1.7
10°-20°	1668.2	5.2
20°-30°	2794.3	8.8
30°-40°	4055.9	12.7
40°-50°	5484.4	17.2
50°-60°	6401.8	20.1
60°-70°	6374.1	20.0
70°-80°	3865.2	12.1
80°-90°	697.7	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°	31889.0	100.0
0°-180°	31889.0	100.0



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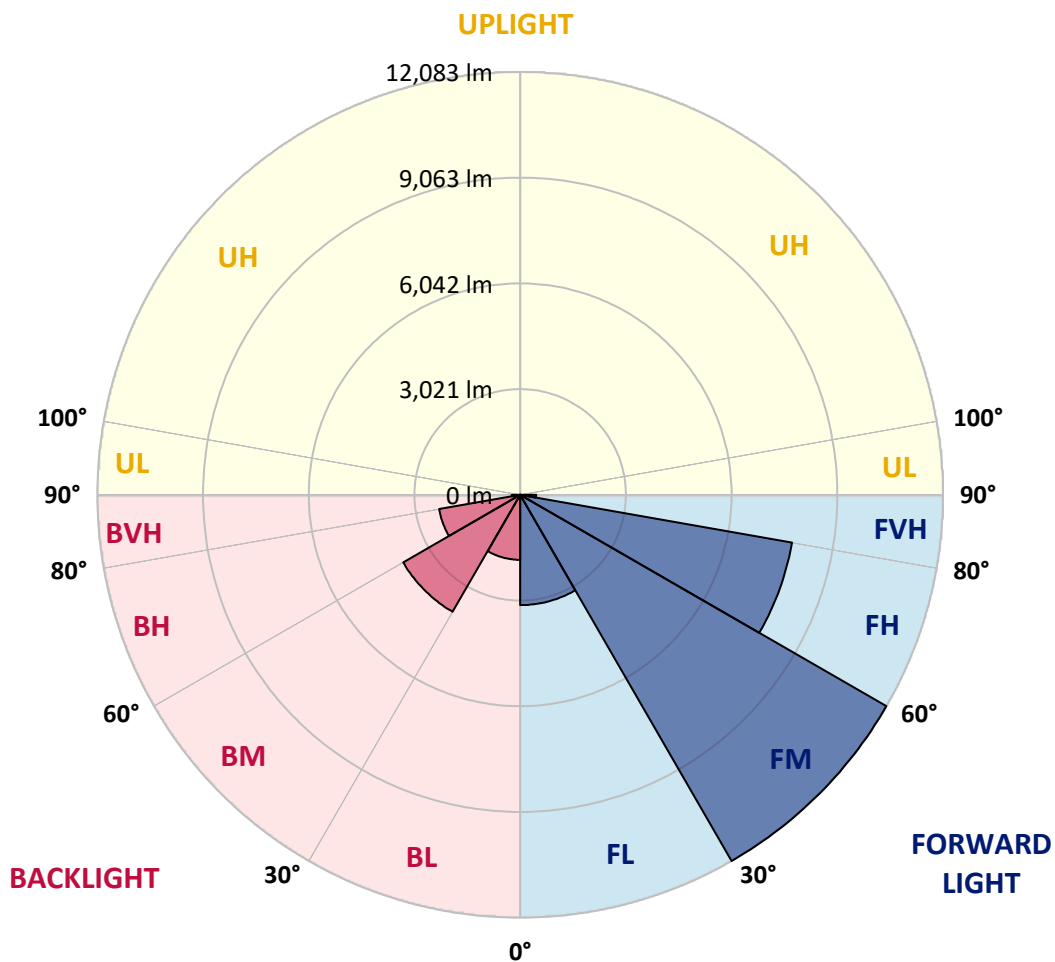
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3151.8	9.9			
FM	(30°-60°)	12083.5	37.9			
FH	(60°-80°)	7888.0	24.7			G4/12000
FVH	(80°-90°)	459.0	1.4			G3/500
BL	(0°-30°)	1858.0	5.8	B3/2500		
BM	(30°-60°)	3858.7	12.1	B3/5000		
BH	(60°-80°)	2351.3	7.4	B3/2500		G3/2500
BVH	(80°-90°)	238.7	0.7			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	72°	75°	85°
0°	5692.0	5692.0	5692.0	5692.0	5692.0	5692.0	5692.0	5692.0	5692.0	5692.0	5692.0
2.5°	5988.1	5976.7	5980.5	5986.0	5918.0	5906.6	5850.4	5821.7	5790.3	5768.2	5718.5
5°	6296.3	6295.3	6270.7	6271.1	6164.4	6123.4	6019.5	5942.9	5876.3	5841.7	5738.2
7.5°	6575.8	6546.9	6544.4	6537.5	6417.1	6351.5	6213.8	6097.5	5995.7	5942.5	5782.0
10°	6838.5	6818.1	6818.5	6810.2	6686.6	6604.8	6439.2	6292.8	6156.9	6088.2	5854.5
12.5°	7118.7	7095.6	7091.8	7062.8	6949.3	6870.6	6689.4	6509.6	6345.0	6267.3	5964.3
15°	7406.2	7384.2	7373.1	7339.6	7213.0	7129.1	6977.2	6755.0	6567.6	6470.9	6108.5
17.5°	7671.3	7657.8	7639.2	7613.3	7502.5	7410.7	7258.9	7047.6	6823.7	6700.1	6274.5
20°	7834.9	7823.2	7835.6	7835.6	7771.7	7705.1	7552.2	7371.0	7129.1	6976.2	6465.4
22.5°	7960.2	7948.1	8003.3	8031.3	8037.8	8023.0	7872.9	7714.8	7462.8	7305.1	6701.5
25°	7990.9	7992.3	8085.8	8211.4	8304.6	8348.1	8232.5	8116.2	7898.7	7701.3	7024.2
27.5°	7981.9	7990.9	8110.7	8335.0	8558.3	8663.9	8622.1	8554.5	8382.3	8214.2	7455.2
30°	7968.8	7992.3	8150.4	8426.1	8749.2	8958.3	9000.1	9102.6	9018.0	8903.4	8139.0
32.5°	7805.9	7827.0	8053.4	8459.9	8911.7	9291.4	9516.0	9950.6	10088.3	10065.8	9197.1
35°	7424.5	7465.9	7801.8	8371.2	9037.0	9630.6	10163.9	11073.6	11550.3	11512.0	10417.9
37.5°	7035.9	7086.6	7489.4	8205.9	9093.6	9991.6	10872.8	12329.2	12905.3	12849.4	11591.0
40°	6683.5	6741.9	7148.4	7958.1	9078.4	10329.2	11617.6	13509.3	14111.9	14012.5	12637.1
42.5°	6276.3	6360.8	6731.2	7627.8	8960.0	10567.0	12354.4	14636.8	15182.5	15030.6	13589.0
45°	5897.0	5965.0	6320.8	7175.3	8779.5	10742.0	13028.5	15681.5	16156.1	15979.0	14466.0
47.5°	5485.9	5572.2	5929.8	6709.8	8420.9	10781.3	13645.6	16609.6	17056.2	16871.9	15283.9
50°	4401.5	4540.6	5348.2	6254.2	7864.2	10638.4	14193.7	17480.0	17865.2	17719.5	16130.2
52.5°	3837.6	3864.8	4273.5	5731.3	7186.4	10264.6	14589.2	18333.9	18625.9	18477.5	16879.1
55°	3585.3	3592.8	3775.8	4850.9	6528.9	9552.6	14780.7	19151.5	19371.0	19165.3	17588.1
57.5°	3326.1	3368.5	3552.5	4093.6	5910.8	8525.2	14647.9	19866.6	19997.4	19765.9	18239.0
60°	3111.7	3146.2	3329.9	3697.4	5232.6	7330.7	14028.7	20436.4	20551.7	20315.3	18849.9
62.5°	2917.4	2942.6	3084.8	3429.3	4620.0	6271.4	12873.2	20589.0	20975.9	20787.8	19414.5
65°	2696.9	2720.0	2851.8	3159.0	4171.6	5593.6	11710.8	20417.5	21108.1	20994.2	19668.5
67.5°	2434.9	2466.0	2585.1	2849.8	3709.9	5010.0	10338.5	19982.3	20544.1	20369.1	19120.8
70°	2090.8	2141.6	2276.5	2506.0	3170.4	4257.9	8247.3	18551.7	19219.2	19019.3	17658.1
72.5°	1648.4	1659.4	1757.1	1947.9	2510.9	3387.1	5566.0	15697.8	17441.0	17384.4	15620.1
75°	1229.0	1266.6	1423.3	1570.4	1834.4	2430.1	3383.4	11441.2	15057.9	15057.9	13164.1
77.5°	1003.0	1022.6	1126.9	1250.4	1430.6	1705.3	2150.9	6464.7	10378.9	11431.5	9894.7
80°	783.8	776.9	784.1	839.7	1009.9	1127.6	1429.9	3322.6	5362.0	6095.1	6481.6
82.5°	429.3	429.7	476.6	449.4	557.0	633.7	867.3	1868.9	2801.8	3111.0	3472.4
85°	217.4	212.3	236.4	220.5	257.8	289.2	393.8	928.4	1429.9	1550.0	1636.3
87.5°	77.7	73.9	84.9	101.8	95.3	101.1	136.0	333.7	552.6	591.2	579.5
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°	5692.0	5692.0	5692.0	5692.0	5692.0	5692.0	5692.0	5692.0	5692.0	5692.0	5692.0
2.5°	5704.4	5671.2	5631.2	5597.7	5527.0	5490.1	5460.7	5469.0	5437.2	5391.3	5390.7
5°	5700.6	5637.4	5551.5	5480.4	5366.5	5307.8	5252.6	5238.1	5190.8	5145.3	5142.8
7.5°	5713.7	5629.8	5490.4	5376.8	5228.4	5137.0	5051.4	5017.9	4962.3	4914.4	4912.0
10°	5749.9	5639.2	5448.3	5290.9	5105.2	4979.9	4869.2	4801.9	4737.7	4688.3	4687.6
12.5°	5814.8	5666.8	5411.4	5206.0	4985.5	4819.5	4678.0	4591.0	4501.2	4464.7	4462.6
15°	5906.3	5707.1	5363.4	5093.1	4838.1	4649.0	4474.0	4359.0	4259.6	4224.4	4232.0
17.5°	6023.6	5773.1	5324.7	4968.6	4675.5	4447.4	4265.5	4149.9	4003.6	3971.1	3980.1
20°	6169.3	5874.9	5316.5	4854.7	4497.4	4225.8	4002.5	3920.7	3735.4	3691.9	3686.0
22.5°	6357.7	5995.0	5313.0	4732.8	4288.6	3971.1	3706.4	3602.5	3446.9	3373.7	3357.1
25°	6591.0	6134.1	5307.1	4611.0	4056.0	3680.9	3358.8	3212.9	3115.5	3004.7	3002.3
27.5°	6898.2	6320.8	5320.9	4490.2	3802.3	3342.3	2985.8	2808.7	2752.8	2681.0	2643.7
30°	7427.6	6653.5	5358.6	4344.2	3524.9	2952.6	2577.1	2442.9	2374.2	2301.4	2288.9
32.5°	8316.4	7373.5	5474.9	4186.1	3216.0	2531.2	2242.7	2102.2	1988.3	1950.7	1940.7
35°	9429.4	8228.4	5773.8	4017.0	2881.9	2197.5	1967.3	1781.9	1673.2	1664.2	1663.5
37.5°	10429.3	9140.2	6163.4	3808.6	2513.6	1959.3	1693.9	1534.1	1452.3	1460.6	1482.4
40°	11396.3	9949.2	6576.5	3600.8	2156.1	1707.4	1428.5	1351.9	1315.3	1345.0	1359.5
42.5°	12304.7	10688.1	6874.0	3318.8	1846.5	1436.8	1245.6	1290.8	1303.9	1328.4	1338.4
45°	13153.8	11445.3	7095.3	2979.2	1567.9	1245.9	1219.4	1297.4	1334.6	1353.6	1352.6
47.5°	13975.2	12169.1	7161.5	2530.2	1352.6	1224.9	1243.5	1288.0	1346.4	1381.2	1378.8
50°	14794.9	12827.6	7106.0	2073.9	1309.1	1265.6	1266.6	1259.4	1327.4	1355.7	1345.0
52.5°	15529.7	13442.6	6791.9	1735.7	1338.1	1308.4	1293.9	1257.3	1276.7	1296.3	1286.7
55°	16190.3	13955.9	6299.4	1569.0	1362.9	1336.0	1355.3	1284.2	1245.9	1229.4	1232.5
57.5°	16804.9	14351.7	5733.4	1465.4	1357.8	1329.5	1379.8	1277.0	1221.1	1151.4	1137.9
60°	17387.9	14611.6	5095.9	1376.1	1333.3	1319.8	1326.7	1277.3	1198.0	1107.5	1085.4
62.5°	17800.0	14625.4	4364.2	1296.3	1286.0	1305.0	1284.9	1267.3	1204.2	1135.5	1121.7
65°	17791.7	14195.7	3640.5	1204.9	1227.0	1265.3	1230.7	1172.4	1076.8	1056.5	1049.6
67.5°	17019.6	13108.2	2938.5	1069.2	1131.4	1211.8	1153.1	1058.2	975.7	951.5	956.0
70°	15340.9	11570.6	2170.2	866.6	987.8	1120.7	1084.1	978.5	888.0	869.0	889.4
72.5°	13351.2	9939.5	1542.8	687.2	820.4	991.6	977.1	886.0	806.6	814.5	832.8
75°	11146.5	7912.2	1131.7	591.2	644.0	845.2	881.8	823.5	773.1	798.3	797.6
77.5°	8307.4	5843.1	861.8	496.0	533.2	657.8	777.2	755.2	892.5	1084.8	1091.0
80°	5459.0	3793.7	581.6	407.3	436.2	493.5	634.4	727.5	913.9	792.1	782.4
82.5°	3024.8	2013.5	360.7	316.8	327.5	357.9	459.7	759.6	671.3	623.0	625.4
85°	1341.2	779.7	212.9	212.6	213.3	217.1	295.1	576.0	472.1	457.3	464.9
87.5°	464.6	205.4	67.0	53.2	60.1	75.2	153.6	351.3	246.4	204.3	205.0
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)