

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: P591280

Luminaire Tested: **CTN-CA8-480-727-U-T2-SSS-HM-EX90**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591280
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/19/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-480-727-U-T2-SSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE, 90D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43727 lumens
Efficiency: N/A
Efficacy: 90.9 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

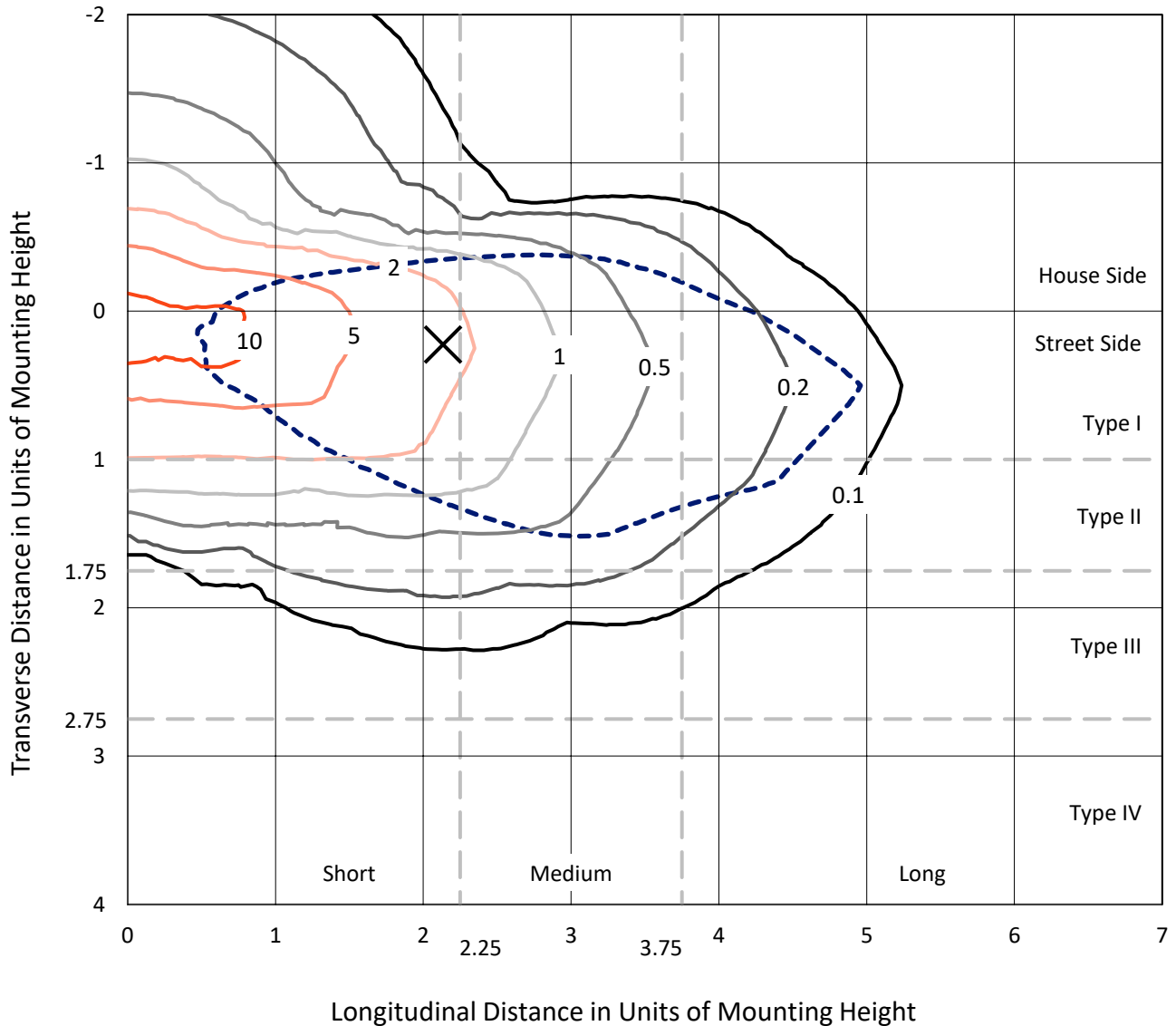
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

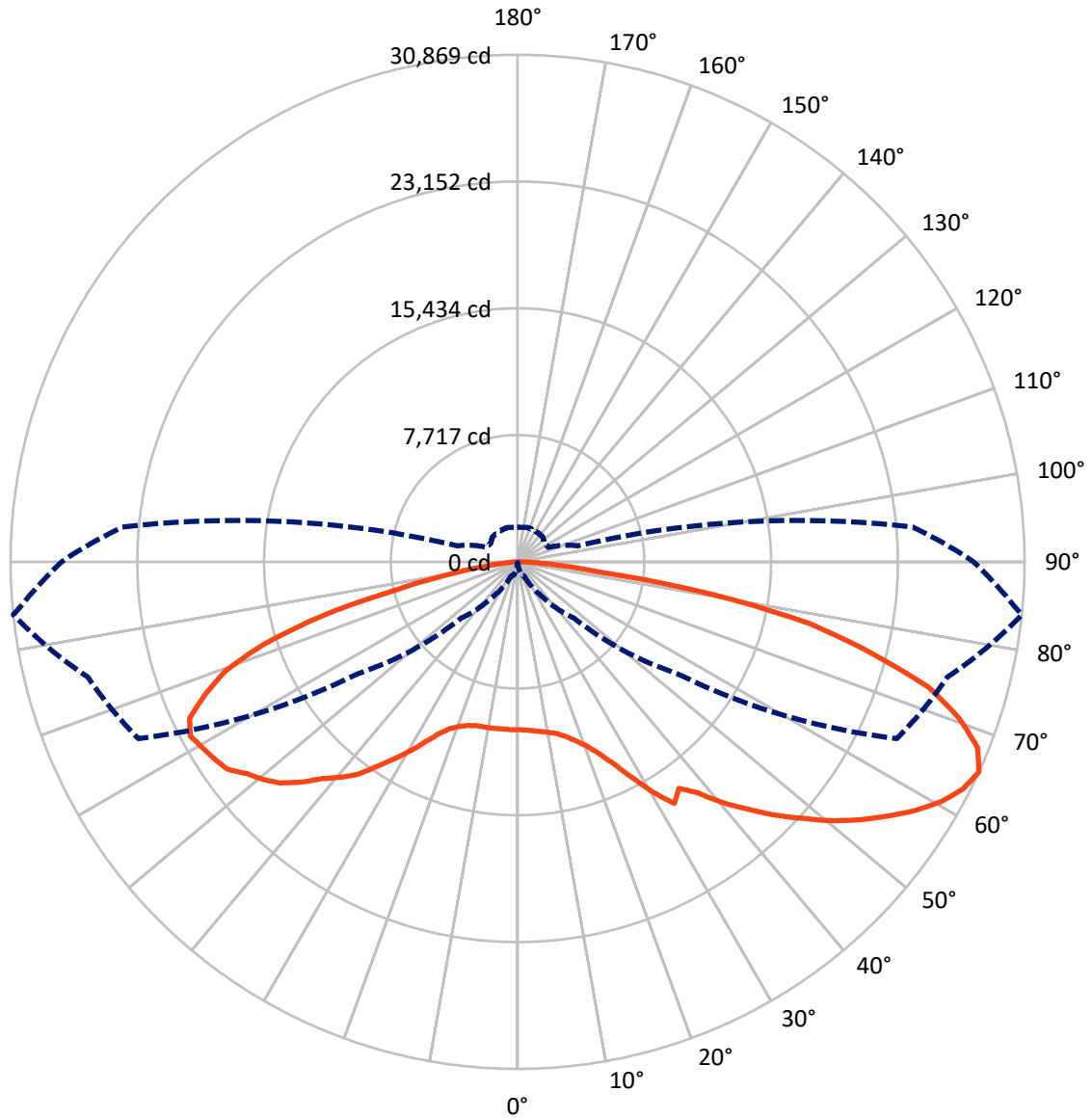
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.2 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 84-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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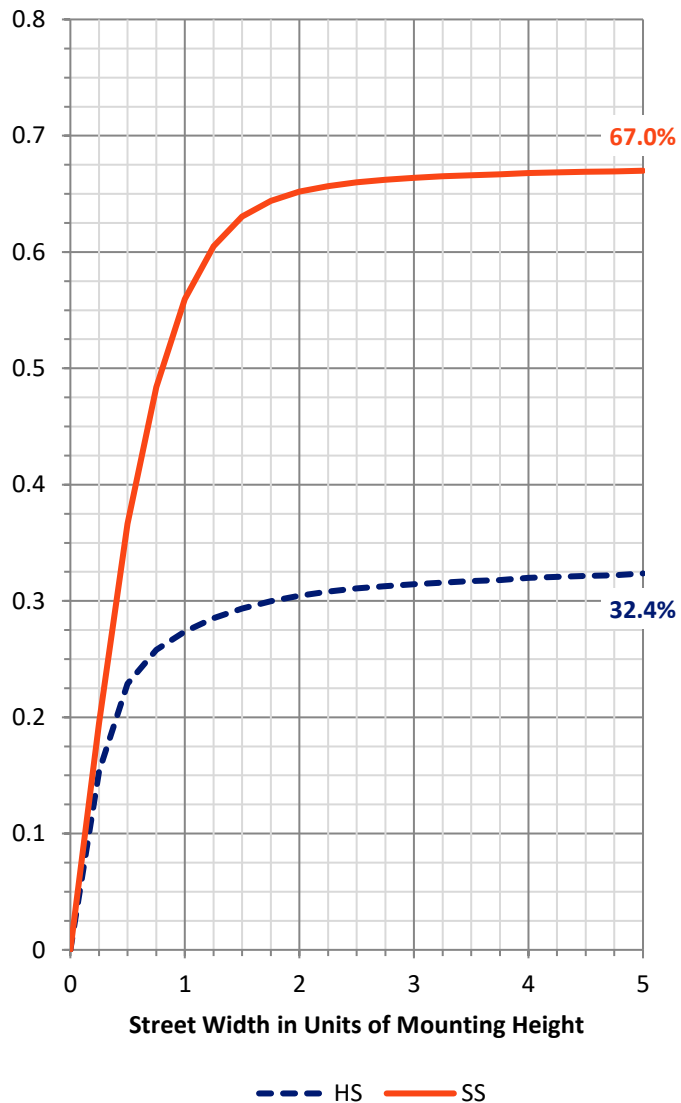
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14475.8	0.0	14475.8
	% Fixture	33.1	0.0	33.1
Street Side	Lumens	29251.2	0.0	29251.2
	% Fixture	66.9	0.0	66.9
Total	Lumens	43727.0	0.0	43727.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	986.8	2.3
10°-20°	2937.3	6.7
20°-30°	4413.3	10.1
30°-40°	5868.8	13.4
40°-50°	7246.2	16.6
50°-60°	8142.7	18.6
60°-70°	7986.1	18.3
70°-80°	5192.9	11.9
80°-90°	953.0	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°	43727.0	100.0
0°-180°	43727.0	100.0

Coefficient of Utilization

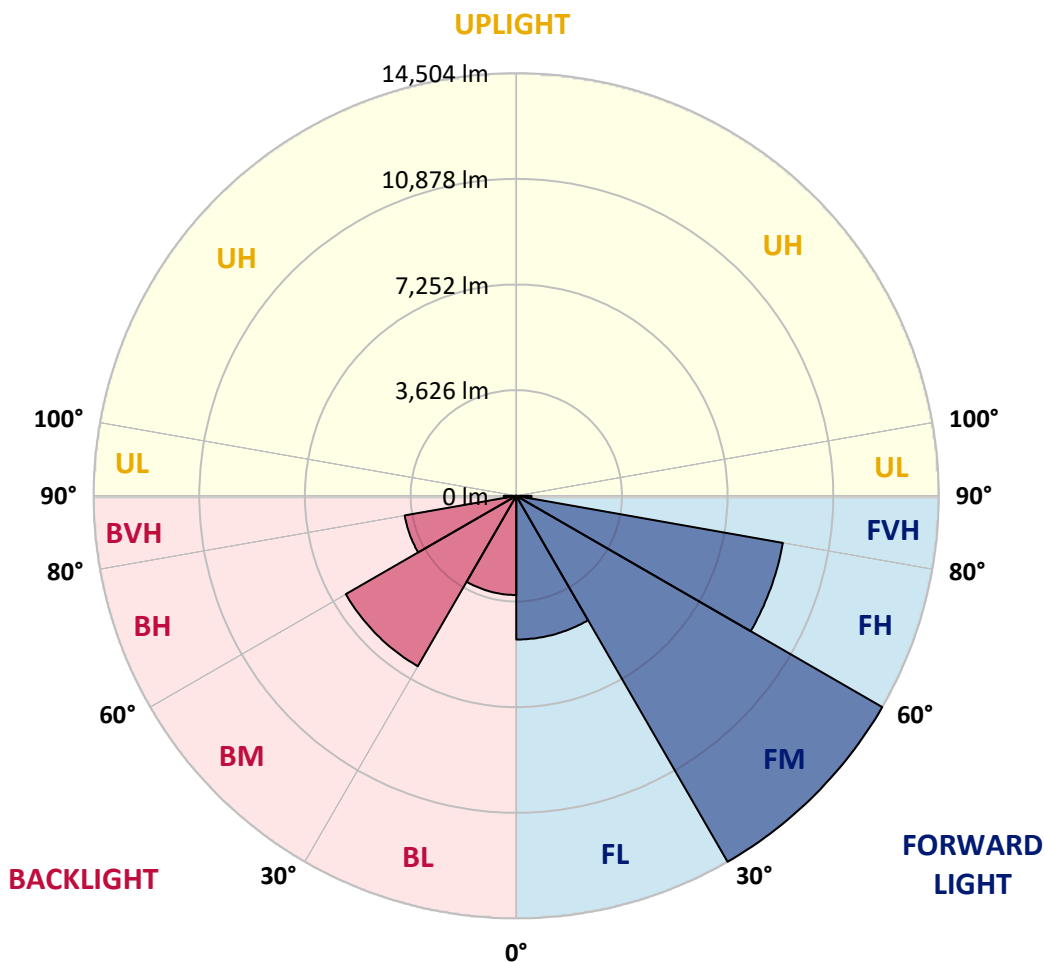


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4932.2	11.3			
FM	(30°-60°)	14504.1	33.2			
FH	(60°-80°)	9291.4	21.2			G4/12000
FVH	(80°-90°)	523.5	1.2			G4/750
BL	(0°-30°)	3405.2	7.8	B4/5000		
BM	(30°-60°)	6753.5	15.4	B4/8500		
BH	(60°-80°)	3887.6	8.9	B4/5000		G4/5000
BVH	(80°-90°)	429.5	1.0			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°	75°	84°	85°
0°	10222.1	10222.1	10222.1	10222.1	10222.1	10222.1	10222.1	10222.1	10222.1	10222.1	10222.1
2.5°	10661.0	10560.6	10571.7	10620.1	10434.1	10495.5	10391.3	10409.9	10285.3	10263.0	10276.0
5°	11410.6	11302.7	11302.7	11332.4	11020.0	10936.3	10646.1	10597.8	10413.6	10331.8	10335.5
7.5°	11797.4	11691.4	11670.9	11698.8	11473.8	11492.4	11194.8	10910.2	10582.9	10437.8	10430.4
10°	12366.5	12247.5	12176.8	12178.7	11875.5	11760.2	11540.7	11341.7	10841.4	10558.7	10523.4
12.5°	12825.9	12734.8	12697.6	12669.7	12334.9	12258.7	11845.8	11684.0	11150.2	10742.8	10696.3
15°	13091.9	13006.4	12952.4	12889.2	12703.2	12578.6	12400.0	12031.8	11516.6	11038.6	10980.9
17.5°	12398.2	12251.2	11996.4	11884.8	11842.1	12022.5	12790.6	12602.8	11989.0	11458.9	11397.5
20°	10568.0	10701.9	10895.4	10456.4	10592.2	11933.2	13374.6	13357.9	12649.3	11962.9	11883.0
22.5°	8990.8	8637.4	9247.5	9917.0	10344.8	11609.6	13601.5	14230.2	13543.9	12671.6	12578.6
25°	7370.8	7571.7	8393.8	9742.2	10341.1	11364.1	13476.9	14899.7	14687.7	13636.9	13527.1
27.5°	7151.4	7155.1	7945.5	8977.8	10545.7	11933.2	13612.7	14925.8	15980.4	14884.9	14672.8
30°	7104.9	7082.5	7296.4	8550.0	10184.9	12465.1	14486.8	15158.3	16294.7	16279.8	15997.1
32.5°	6887.3	6874.2	7097.4	7666.6	9413.0	13028.7	15314.5	16242.6	16181.2	17537.1	17460.8
35°	6576.6	6623.1	6900.3	7491.7	9050.3	12560.0	16164.5	17485.0	17589.2	16927.0	17230.2
37.5°	6253.0	6279.1	6546.9	7261.1	8444.0	11739.8	16811.7	18703.3	19060.4	17864.4	17622.7
40°	5812.2	5866.2	6180.5	6984.0	8321.2	10979.1	16354.2	20090.8	20646.9	19294.7	18922.7
42.5°	5345.4	5371.4	5754.6	6533.9	8116.7	10990.2	15414.9	21288.5	22108.8	20600.4	20222.8
45°	4936.2	4943.6	5302.6	6000.1	7713.1	10921.4	14821.6	21336.9	23858.9	21999.0	21524.7
47.5°	4435.9	4506.6	4861.8	5557.4	7197.9	10690.8	15098.8	19835.9	25614.7	23332.6	22899.2
50°	3401.8	3457.6	4145.7	5124.1	6634.3	10305.8	15288.5	21044.9	23658.1	24779.6	24469.0
52.5°	2925.6	2830.8	3325.5	4636.8	6119.1	9664.1	15368.4	22741.1	23654.3	26089.0	25778.4
55°	1251.7	1919.4	2996.3	3807.2	5648.5	8808.5	15310.8	24400.2	24807.5	27324.0	27216.1
57.5°	989.5	1036.0	2202.1	3080.0	5090.6	7796.7	15050.4	25497.5	25819.3	28560.8	28253.9
60°	182.3	206.5	1082.5	1301.9	3686.3	6286.5	14101.8	25653.8	26557.7	29637.7	29245.2
62.5°	83.7	98.6	870.4	1084.3	2948.0	5170.6	13289.1	25603.5	27240.3	30437.4	30091.5
65°	39.1	50.2	779.3	983.9	2551.8	4824.6	11881.1	25467.8	27089.6	30868.9	30307.2
67.5°	29.8	42.8	716.1	883.5	2122.2	4480.5	10543.8	24043.1	26364.2	30201.2	29421.9
70°	29.8	42.8	654.7	803.5	1800.4	4043.4	8559.3	22259.4	24708.9	28514.3	27865.2
72.5°	31.6	42.8	582.2	727.2	1560.5	3491.1	6686.4	19411.9	22724.4	26185.7	25503.1
75°	31.6	42.8	502.2	643.5	1315.0	2923.8	4476.8	13874.9	19573.7	22287.3	21528.5
77.5°	31.6	42.8	416.6	537.5	1071.3	2336.0	2895.9	7480.6	15400.1	18277.3	17304.6
80°	31.6	42.8	310.6	407.3	805.3	1647.9	1729.7	3771.9	8285.9	12007.6	12176.8
82.5°	31.6	40.9	215.7	297.6	526.4	903.9	956.0	1820.9	3057.7	4925.0	4993.9
85°	29.8	35.3	154.4	197.2	288.3	340.4	465.0	905.8	1465.6	2101.7	2085.0
87.5°	18.6	18.6	50.2	78.1	117.2	133.9	208.3	334.8	505.9	693.7	654.7
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°	10222.1	10222.1	10222.1	10222.1	10222.1	10222.1	10222.1	10222.1	10222.1	10222.1	10222.1
2.5°	10274.1	10231.4	10177.4	10162.6	10036.1	9976.6	9855.7	9909.6	9848.2	9798.0	9855.7
5°	10289.0	10225.8	10112.3	9978.4	9708.7	9586.0	9414.9	9433.5	9344.2	9275.4	9314.4
7.5°	10326.2	10248.1	10069.6	9768.3	9446.5	9253.1	9074.5	9214.0	9152.6	9100.5	9139.6
10°	10344.8	10283.4	9967.3	9649.2	9186.1	9080.1	8856.9	8840.2	8845.7	8840.2	8901.5
12.5°	10395.0	10307.6	9848.2	9442.8	9048.5	8767.6	8630.0	8628.1	8451.4	8375.2	8408.7
15°	10543.8	10354.1	9768.3	9197.3	8762.0	8576.0	8140.8	8142.7	8068.3	7980.9	7979.0
17.5°	10841.4	10493.6	9768.3	9031.7	8497.9	8122.2	7742.8	7536.4	7486.1	7497.3	7489.9
20°	11233.9	10728.0	9764.5	8788.1	8126.0	7737.2	7190.4	7015.6	6857.5	6868.7	6868.7
22.5°	11797.4	11073.9	9772.0	8564.9	7770.7	7242.5	6626.9	6405.5	6236.3	6241.9	6241.9
25°	12606.5	11667.2	9859.4	8429.1	7294.6	6660.3	6039.1	5695.0	5522.1	5523.9	5527.7
27.5°	13636.9	12494.9	10162.6	8140.8	6898.4	5972.2	5291.4	5038.5	4865.5	4820.9	4820.9
30°	14803.0	13488.1	10555.0	7953.0	6284.6	5196.6	4631.2	4443.3	4235.0	4173.6	4173.6
32.5°	16095.7	14485.0	10960.5	7722.4	5706.2	4530.7	4060.2	3887.2	3626.8	3550.6	3524.5
35°	17440.4	15515.4	11453.3	7398.7	4979.0	3982.1	3565.4	3355.3	3167.4	3067.0	3042.8
37.5°	18165.7	16689.0	11897.9	7071.4	4417.3	3548.7	3083.7	2920.1	2795.4	2724.8	2711.8
40°	19162.7	17542.7	12128.5	6530.1	3812.8	3107.9	2639.2	2631.8	2648.5	2585.3	2581.6
42.5°	20178.2	18385.2	12065.2	5804.8	3342.3	2657.8	2416.0	2544.4	2637.4	2581.6	2585.3
45°	21448.5	19519.8	12295.9	5042.2	2877.3	2408.6	2369.5	2520.2	2648.5	2635.5	2635.5
47.5°	22733.7	20617.1	11870.0	4108.5	2564.8	2336.0	2375.1	2481.1	2641.1	2683.9	2674.6
50°	23780.8	21368.5	11607.7	3316.2	2388.1	2337.9	2393.7	2432.8	2607.6	2676.4	2674.6
52.5°	24627.1	22084.6	10629.4	2799.2	2287.7	2345.3	2453.2	2425.3	2548.1	2620.6	2663.4
55°	25824.9	23075.9	9515.3	2600.2	2235.6	2337.9	2473.7	2451.4	2501.6	2535.1	2566.7
57.5°	26751.1	23568.8	8023.7	2471.8	2189.1	2326.7	2456.9	2458.8	2483.0	2470.0	2456.9
60°	27528.5	24018.9	6563.6	2347.2	2129.6	2302.6	2386.3	2412.3	2404.9	2388.1	2354.6
62.5°	27908.0	24506.2	5098.0	2215.2	2066.4	2231.9	2271.0	2300.7	2284.0	2228.2	2224.5
65°	27764.7	24156.5	3779.3	2071.9	1990.1	2153.8	2151.9	2164.9	2172.4	2101.7	2109.1
67.5°	26961.3	22620.2	2879.1	1889.7	1902.7	2042.2	2032.9	2040.3	2019.9	1971.5	1978.9
70°	24625.2	20875.6	2042.2	1582.8	1724.1	1867.4	1880.4	1912.0	1865.5	1779.9	1785.5
72.5°	21171.4	17877.5	1432.1	1261.0	1514.0	1696.2	1688.8	1686.9	1623.7	1657.2	1698.1
75°	18057.9	13690.8	1088.0	1015.5	1195.9	1460.0	1543.7	1549.3	1558.6	1893.4	1917.6
77.5°	13901.0	8282.2	926.2	801.6	928.1	1210.8	1367.0	1430.3	1964.1	2034.7	1997.5
80°	8284.0	4783.7	716.1	624.9	749.5	924.4	1168.0	1510.2	1973.4	1763.2	1686.9
82.5°	4032.3	2218.9	520.8	476.1	552.4	671.4	916.9	1759.5	1670.2	1363.3	1344.7
85°	1504.7	749.5	312.5	325.5	368.3	440.8	697.5	1679.5	1281.5	1110.4	1049.0
87.5°	375.7	137.6	126.5	130.2	165.5	221.3	357.1	809.1	621.2	515.2	504.0
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)