

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: INVUE

Report Number: P368474

Luminaire Tested: **MSA-SA4C-730-U-SL2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368474
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-730-U-SL2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21769 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 225
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: 28.75 FT



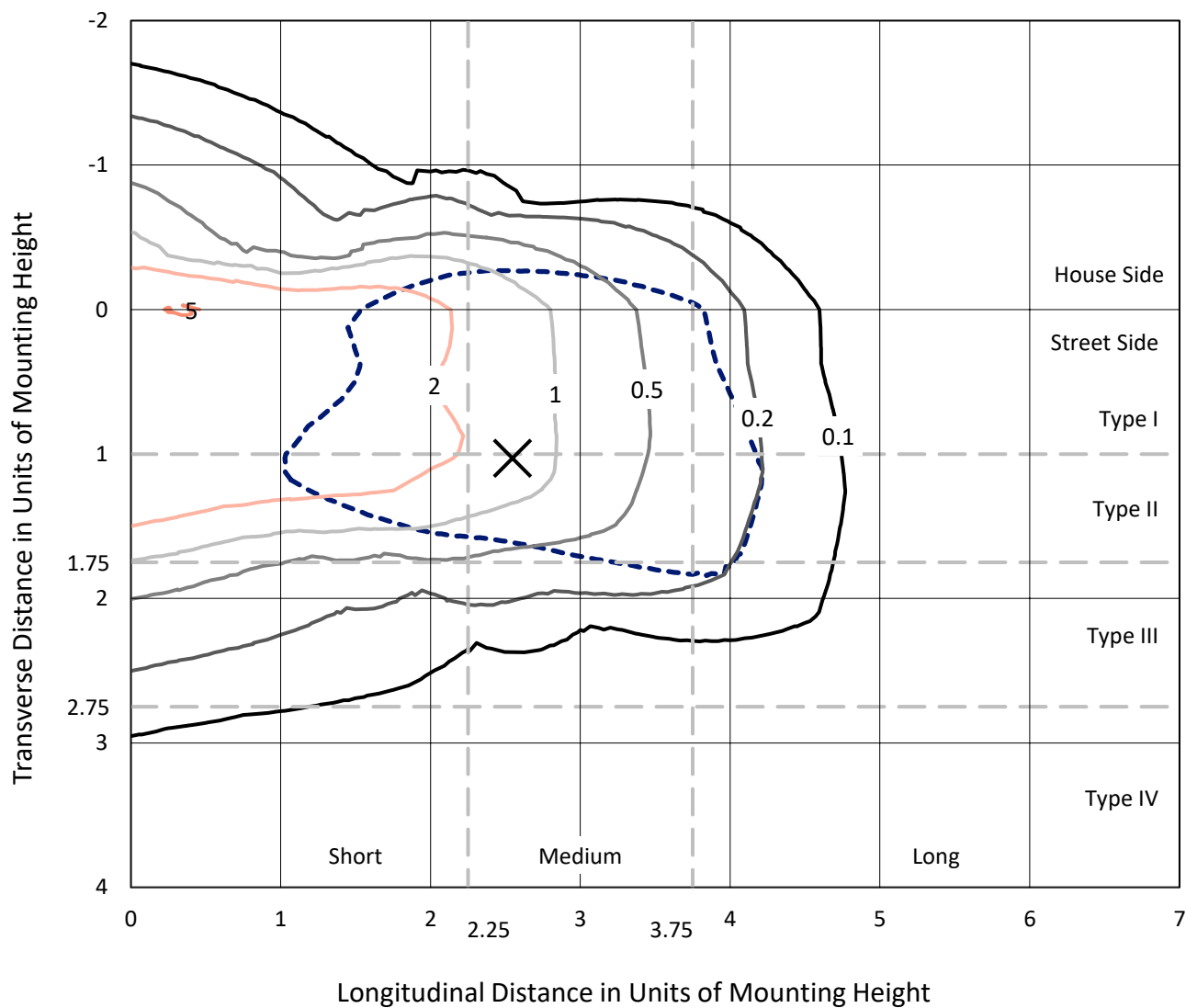
REPORT NUMBER: P368474

CATALOG NUMBER: MSA-SA4C-730-U-SL2

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

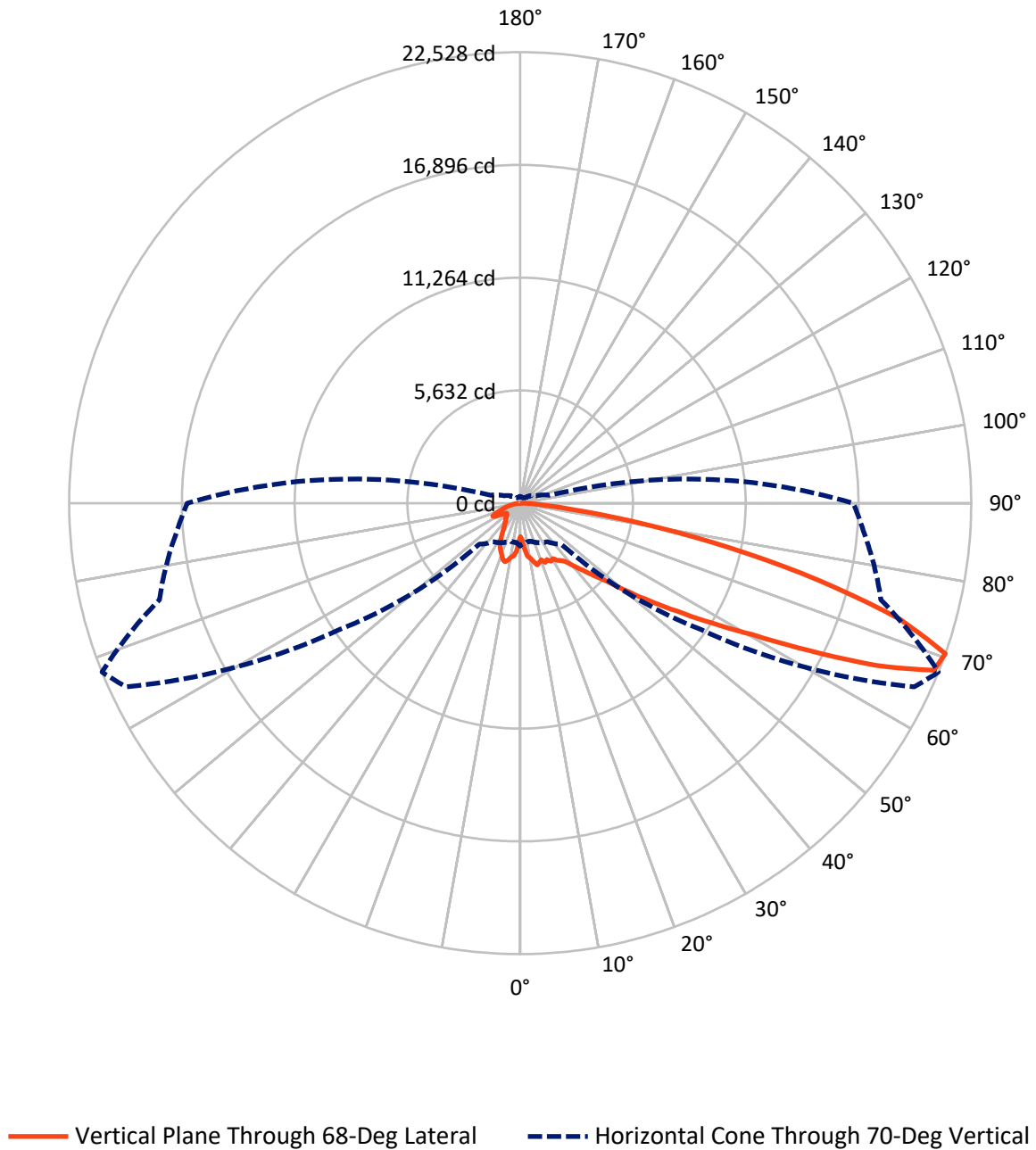


Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type III - Medium - N/A

REPORT NUMBER: P368474

CATALOG NUMBER: MSA-SA4C-730-U-SL2

Luminous Intensity Polar Plot



REPORT NUMBER: P368474

CATALOG NUMBER: MSA-SA4C-730-U-SL2

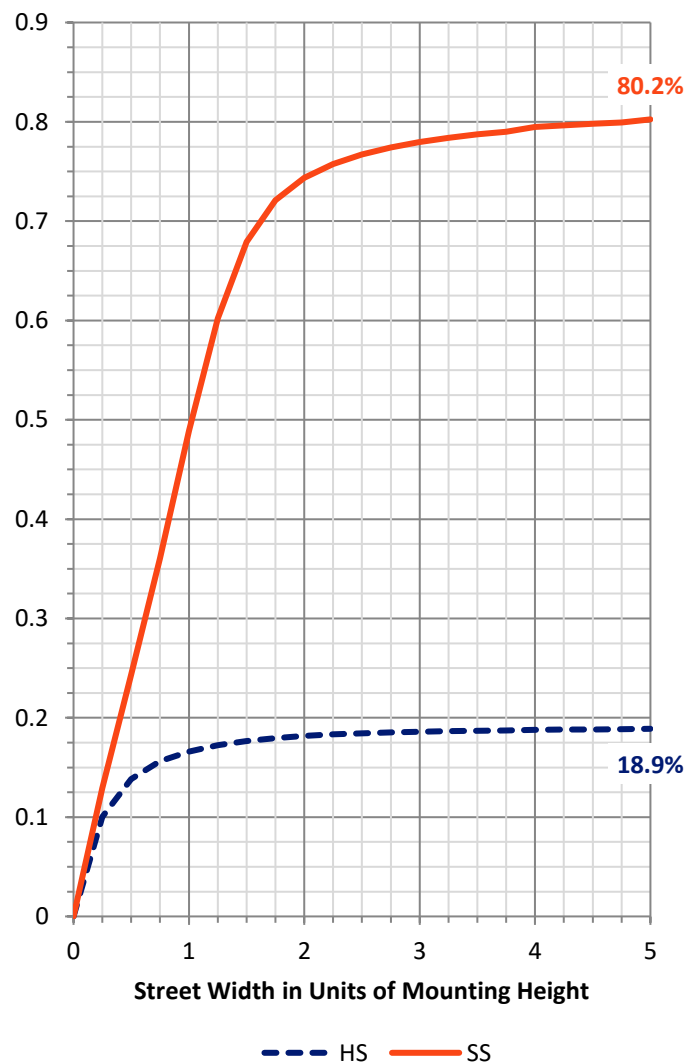
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4156.2	0.0	4156.2
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	17612.8	0.0	17612.8
	% Fixture	80.9	0.0	80.9
Total	Lumens	21769.0	0.0	21769.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.9	1.0
10°-20°	726.6	3.3
20°-30°	1105.2	5.1
30°-40°	1688.2	7.8
40°-50°	2902.7	13.3
50°-60°	4804.6	22.1
60°-70°	5923.4	27.2
70°-80°	3805.1	17.5
80°-90°	590.2	2.7
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°	21769.0	100.0
0°-180°	21769.0	100.0

Coefficient of Utilization



REPORT NUMBER: P368474

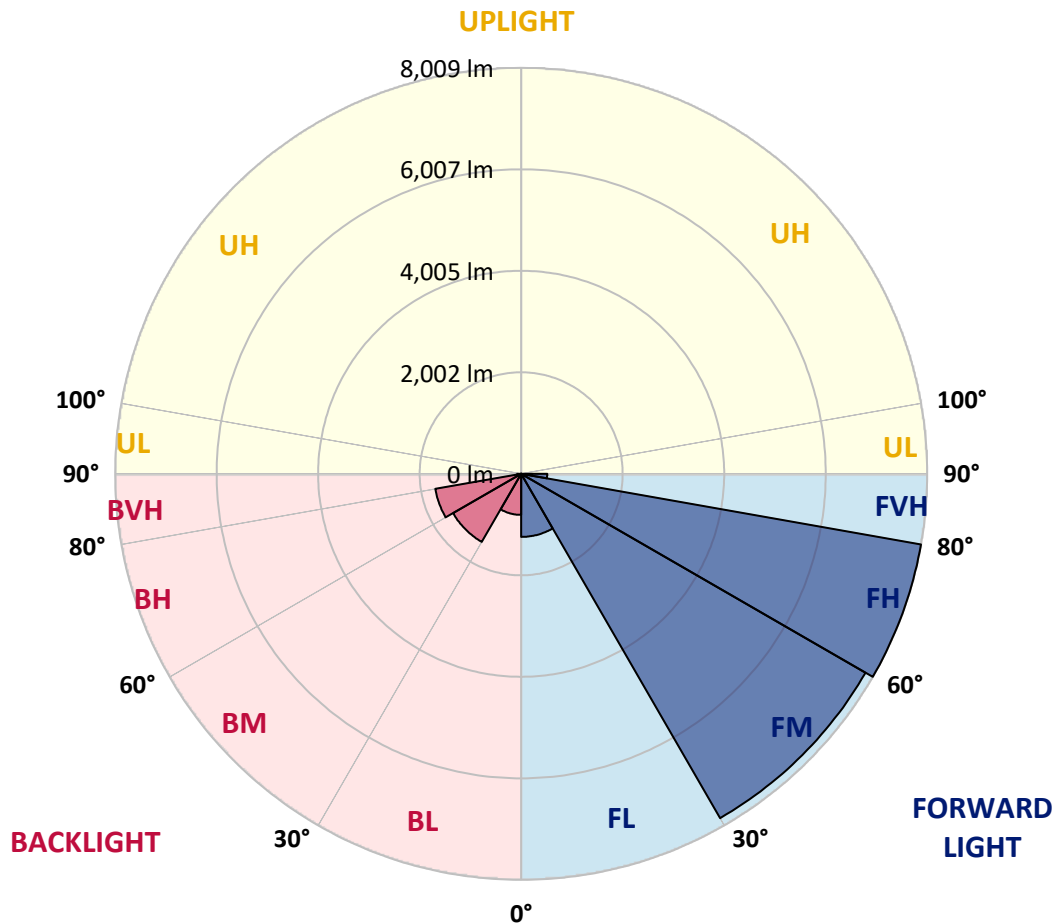
CATALOG NUMBER: MSA-SA4C-730-U-SL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1244.8	5.7			
FM	(30°-60°)	7844.2	36.0			
FH	(60°-80°)	8009.3	36.8			G4/12000
FVH	(80°-90°)	514.5	2.4			G4/750
BL	(0°-30°)	809.9	3.7	B2/1000		
BM	(30°-60°)	1551.4	7.1	B2/2500		
BH	(60°-80°)	1719.2	7.9	B3/2500		G3/2500
BVH	(80°-90°)	75.8	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium



REPORT NUMBER: P368474

CATALOG NUMBER: MSA-SA4C-730-U-SL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	1669.1	1669.1	1669.1	1669.1	1669.1	1669.1	1669.1	1669.1	1669.1	1669.1	1669.1
2.5°	1917.8	1840.4	1762.0	1800.3	1861.3	1915.1	1904.2	1910.5	1836.7	1826.7	2020.8
5°	2259.5	2126.5	2123.7	2125.6	2131.0	2069.1	2220.3	2298.7	2316.0	2396.2	2586.6
7.5°	2377.9	2324.2	2269.5	2296.8	2227.6	2234.0	2419.8	2623.9	2672.2	2730.5	2991.1
10°	2353.3	2302.3	2318.7	2323.3	2336.0	2439.0	2558.3	2754.2	2795.2	2981.1	3048.5
12.5°	2357.0	2347.9	2424.4	2427.1	2563.8	2748.7	2796.1	2976.5	2992.9	3129.6	3411.1
15°	2481.8	2544.7	2501.8	2524.6	2551.0	2772.4	2840.8	3099.5	3197.9	3373.7	3585.1
17.5°	2725.1	2743.3	2614.8	2581.1	2667.7	2735.1	2890.9	3002.9	3105.9	3597.0	3888.5
20°	2781.5	2830.7	2677.7	2503.7	2686.8	2780.6	2889.0	2940.1	3020.2	3629.8	4043.4
22.5°	3023.9	2921.8	2736.9	2585.7	2645.8	2736.9	2815.3	3007.5	3217.9	3535.9	4198.3
25°	3161.5	3102.2	2937.3	2775.2	2724.1	2726.9	2878.1	3050.3	3123.2	3673.5	4229.3
27.5°	3494.0	3399.3	3028.4	2997.5	2805.2	2655.8	2888.1	3156.0	3283.5	3566.0	4380.5
30°	3910.4	3838.4	3351.9	3310.9	3017.5	2756.9	3015.7	3234.3	3216.1	3636.1	4485.3
32.5°	4247.5	4367.7	3876.7	3553.2	3344.6	3095.0	2975.6	3220.7	3402.0	3799.2	4662.9
35°	4728.5	4841.5	4285.7	4067.1	3614.3	3251.7	3255.3	3408.4	3520.4	3989.6	4861.5
37.5°	5561.3	5462.0	5014.6	4669.3	4379.6	3838.4	3676.2	3622.5	3712.7	4222.9	5250.6
40°	6161.7	6077.8	5551.2	5354.4	4790.5	4476.2	4031.5	3980.5	4140.0	4463.4	5568.5
42.5°	6873.2	6723.8	6233.6	6071.5	5482.0	4915.3	4467.0	4496.2	4573.6	4917.1	5998.6
45°	7597.5	7234.9	6957.0	6944.3	6550.7	5768.1	5165.8	5142.2	5144.9	5584.9	6481.5
47.5°	8172.4	7846.3	7528.3	7377.0	7178.4	7243.1	6180.8	5902.9	5819.1	6257.3	7205.8
50°	8561.5	8186.1	7826.2	7790.7	8320.9	8669.9	7133.8	6836.8	6888.7	7219.4	8171.5
52.5°	8569.7	8124.1	7748.8	7997.5	9246.6	9745.9	8775.6	7945.6	8111.4	8336.4	9431.5
55°	7973.8	7511.9	7267.7	7834.4	9608.3	11022.3	11082.4	9722.2	9530.9	9613.8	10937.6
57.5°	6717.4	6250.9	6108.8	6787.6	8922.2	12253.2	13868.5	11845.0	11283.8	10937.6	12480.9
60°	5056.5	4652.9	4564.5	4997.3	7397.1	11891.5	16124.4	14487.2	13343.7	12416.3	14028.9
62.5°	3791.9	3502.2	3369.2	3431.1	5118.5	10715.3	17605.8	17825.4	16206.4	14030.7	15541.3
65°	3081.3	2847.1	2728.7	2648.5	3183.3	8285.4	17337.9	20635.1	19550.0	15726.2	16718.4
67.5°	2573.8	2366.1	2311.4	2389.8	2516.4	4806.9	15242.4	22206.8	22280.6	17399.0	17406.3
70°	2136.5	1982.5	1962.5	2184.8	2351.5	2900.9	11009.5	21713.0	22527.5	18653.5	17245.0
72.5°	1650.9	1568.0	1565.2	1914.2	2336.0	2472.7	6556.2	18757.4	19851.6	18252.7	15667.0
75°	1145.2	1087.8	1131.6	1573.4	2282.3	2508.2	3741.8	14610.1	15429.2	15532.2	12550.2
77.5°	788.1	739.8	787.2	1137.9	2038.1	2568.3	2617.5	10564.0	10655.1	10415.5	7188.5
80°	548.5	514.8	551.2	805.4	1586.2	2541.9	2228.5	6650.9	6102.4	4648.4	2301.4
82.5°	339.8	329.8	369.9	574.0	1117.0	2312.3	2111.9	3432.1	2620.3	1282.8	821.8
85°	178.6	164.0	215.0	374.5	698.8	1814.9	1978.9	1566.2	1011.3	455.5	329.8
87.5°	52.8	47.4	82.9	151.2	296.1	813.6	1132.5	664.2	377.2	133.9	103.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P368474

CATALOG NUMBER: MSA-SA4C-730-U-SL2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1669.1	1669.1	1669.1	1669.1	1669.1	1669.1	1669.1	1669.1	1669.1	1669.1	1669.1
2.5°	2034.5	2024.4	1889.6	1906.9	1936.1	1943.3	1942.4	1893.2	1841.3	1986.2	1981.6
5°	2591.1	2500.9	2433.5	2418.9	2336.0	2253.1	2282.3	2272.2	2259.5	2325.1	2333.3
7.5°	2992.0	2867.2	2788.8	2587.5	2396.2	2230.3	2283.2	2299.6	2266.8	2385.2	2420.8
10°	3097.7	2999.3	2914.6	2655.8	2550.1	2453.5	2310.5	2147.4	2125.6	2057.2	2065.4
12.5°	3370.1	3356.4	3067.6	2839.8	2702.3	2510.0	2201.2	2003.5	1834.0	1842.2	1793.0
15°	3585.1	3592.4	3245.3	2926.4	2557.4	2264.0	1900.5	1654.5	1480.5	1445.9	1410.4
17.5°	3873.9	3859.4	3259.9	2822.5	2355.2	1925.1	1479.6	1235.4	1206.3	1226.3	1195.3
20°	3999.7	3871.2	3166.9	2564.7	2039.0	1462.3	1117.9	988.5	1045.0	1125.2	1127.0
22.5°	4112.6	3893.1	3118.6	2357.0	1618.1	1063.2	897.4	873.7	940.2	1048.7	1057.8
25°	4108.1	3994.2	3032.1	2147.4	1254.6	830.0	779.9	797.2	876.5	989.4	995.8
27.5°	4314.9	3916.8	2807.1	1872.3	944.8	710.6	723.4	755.3	792.6	900.2	921.1
30°	4313.1	4060.7	2694.1	1537.9	758.9	651.4	684.2	711.6	742.5	840.9	852.8
32.5°	4415.1	3966.9	2625.7	1196.3	680.6	636.8	645.0	672.4	717.0	783.5	791.7
35°	4538.1	4073.5	2407.1	950.3	651.4	624.1	630.5	646.0	687.0	748.0	756.2
37.5°	4932.6	4093.5	2320.5	800.8	649.6	618.6	617.7	625.9	672.4	728.0	752.6
40°	5086.6	4276.6	2068.2	748.0	643.2	618.6	605.9	610.4	648.7	719.8	738.9
42.5°	5455.6	4337.7	1881.4	729.8	643.2	607.7	587.6	594.9	639.6	702.4	732.5
45°	5835.5	4424.2	1659.1	726.1	642.3	606.8	568.5	584.9	621.4	674.2	707.0
47.5°	6376.7	4735.8	1436.8	715.2	635.0	611.3	564.0	563.1	594.9	640.5	671.5
50°	7259.5	5222.3	1264.6	701.5	635.9	607.7	554.9	542.1	563.1	603.1	633.2
52.5°	8488.6	6051.4	1197.2	694.2	628.6	593.1	539.4	519.3	531.2	563.1	592.2
55°	9915.3	7171.1	1263.7	694.2	614.1	570.3	517.5	493.8	500.2	522.1	550.3
57.5°	11582.6	8562.4	1585.3	684.2	595.8	543.0	491.1	463.7	465.6	484.7	510.2
60°	13323.7	10116.7	2306.0	676.0	583.1	512.9	460.1	431.9	429.1	447.3	470.1
62.5°	15067.5	11550.7	3064.0	695.2	579.4	487.4	427.3	399.1	398.1	414.5	433.7
65°	16454.2	12531.1	3252.6	772.6	603.1	458.3	393.6	367.2	365.3	379.0	400.0
67.5°	17134.8	12673.2	2470.9	869.2	653.2	430.9	360.8	336.2	334.4	348.9	367.2
70°	16630.9	11702.0	1525.2	879.2	650.5	399.1	327.1	306.1	302.5	318.0	331.6
72.5°	14766.9	10236.0	1158.9	778.1	563.1	353.5	293.4	275.1	269.7	283.3	296.1
75°	11852.3	8126.9	928.4	627.7	443.7	297.9	259.7	242.3	236.0	248.7	259.7
77.5°	6904.2	4571.8	678.8	490.2	335.3	243.3	221.4	205.9	198.6	212.3	220.5
80°	2244.9	1523.3	426.4	351.7	245.1	190.4	179.5	168.6	161.3	170.4	173.1
82.5°	806.3	566.7	236.0	215.9	163.1	136.7	135.8	129.4	120.3	123.9	123.9
85°	357.1	258.7	140.3	115.7	97.5	72.9	85.6	81.1	72.0	70.2	67.4
87.5°	100.2	85.6	51.0	39.2	31.9	11.8	27.3	24.6	20.0	18.2	12.8
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)