

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: LUMARK

Report Number: P883474

Luminaire Tested: **NAV-SB3D-830-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883474
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-830-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26474 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

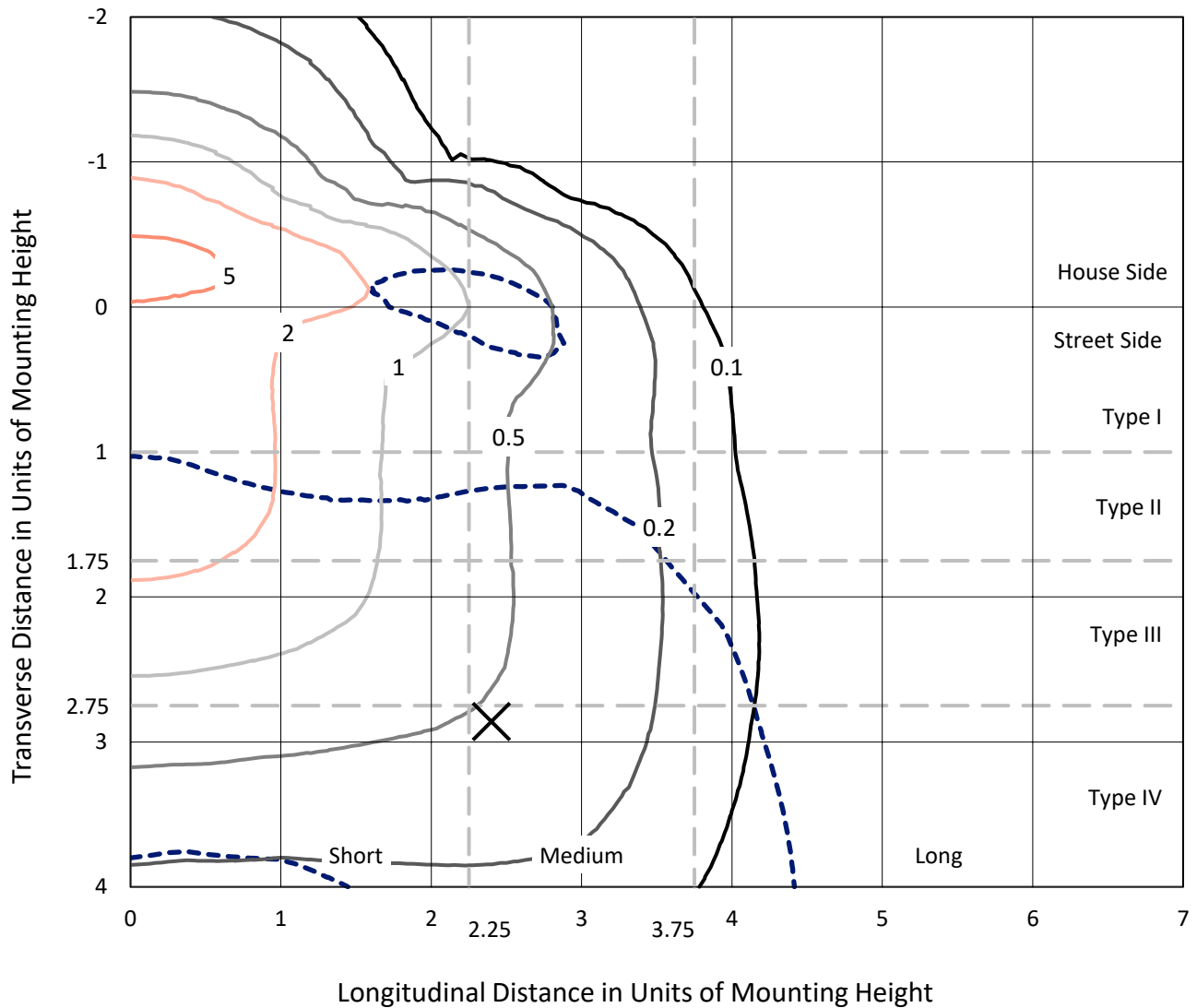
Input Watts (W): 218.1
Input Voltage (V): 120.0
Input Current (Ain): 1.84
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 2.542
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P883474
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Iso-Footcandle Lines of Horizontal Illumination

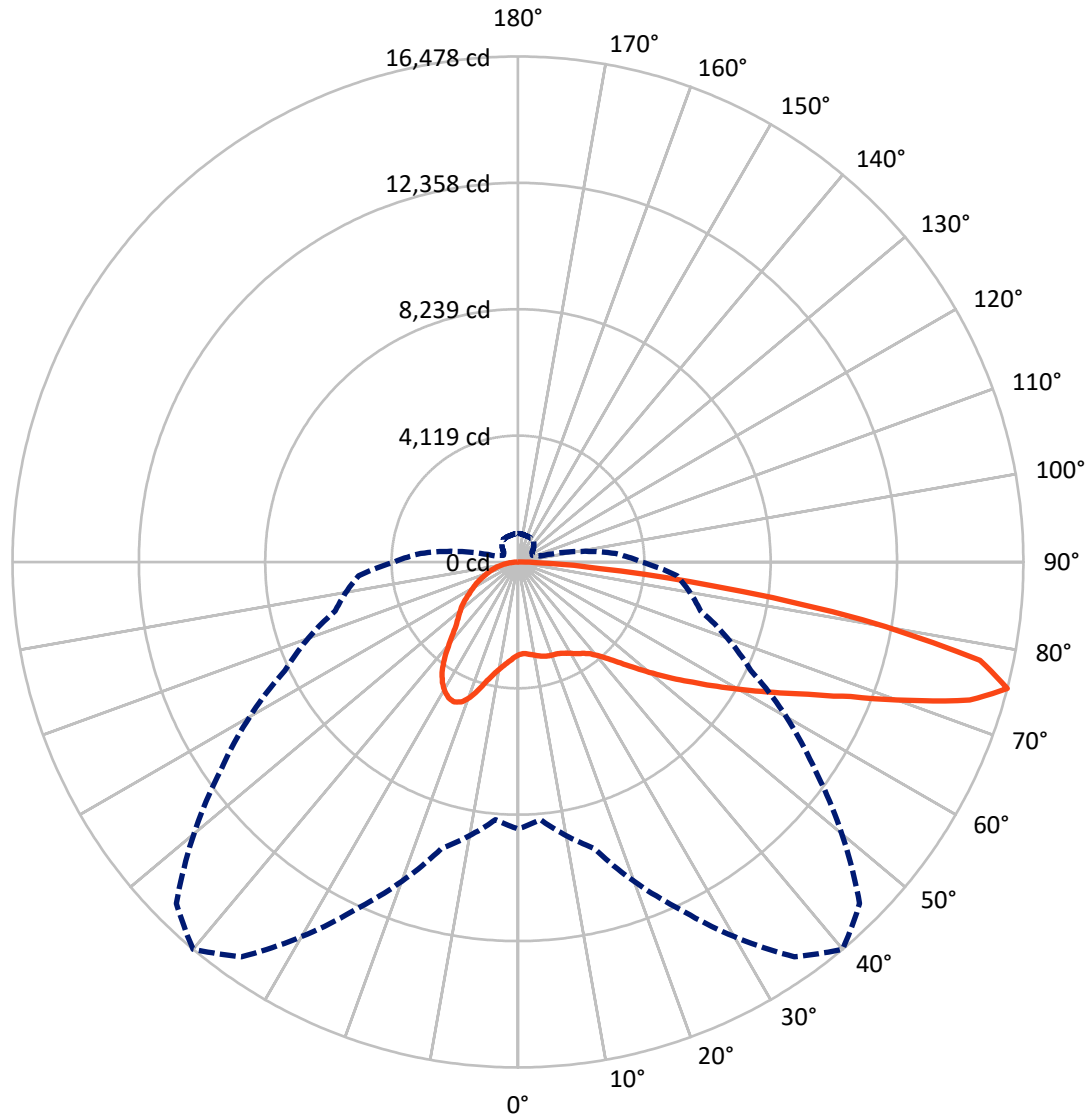
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
 Type IV - Medium - N/A

REPORT NUMBER: P883474
CATALOG NUMBER: NAV-SB3D-830-U-SL4

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P883474

CATALOG NUMBER: NAV-SB3D-830-U-SL4

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8202.5	0.0	8202.5
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	18271.5	0.0	18271.5
	% Fixture	69.0	0.0	69.0
Total	Lumens	26474.0	0.0	26474.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	302.2	1.1
10°-20°	1014.6	3.8
20°-30°	1852.5	7.0
30°-40°	2627.4	9.9
40°-50°	3547.8	13.4
50°-60°	4772.7	18.0
60°-70°	6057.7	22.9
70°-80°	5497.7	20.8
80°-90°	801.4	3.0
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°	26474.0	100.0
0°-180°	26474.0	100.0

Coefficient of Utilization



REPORT NUMBER: P883474

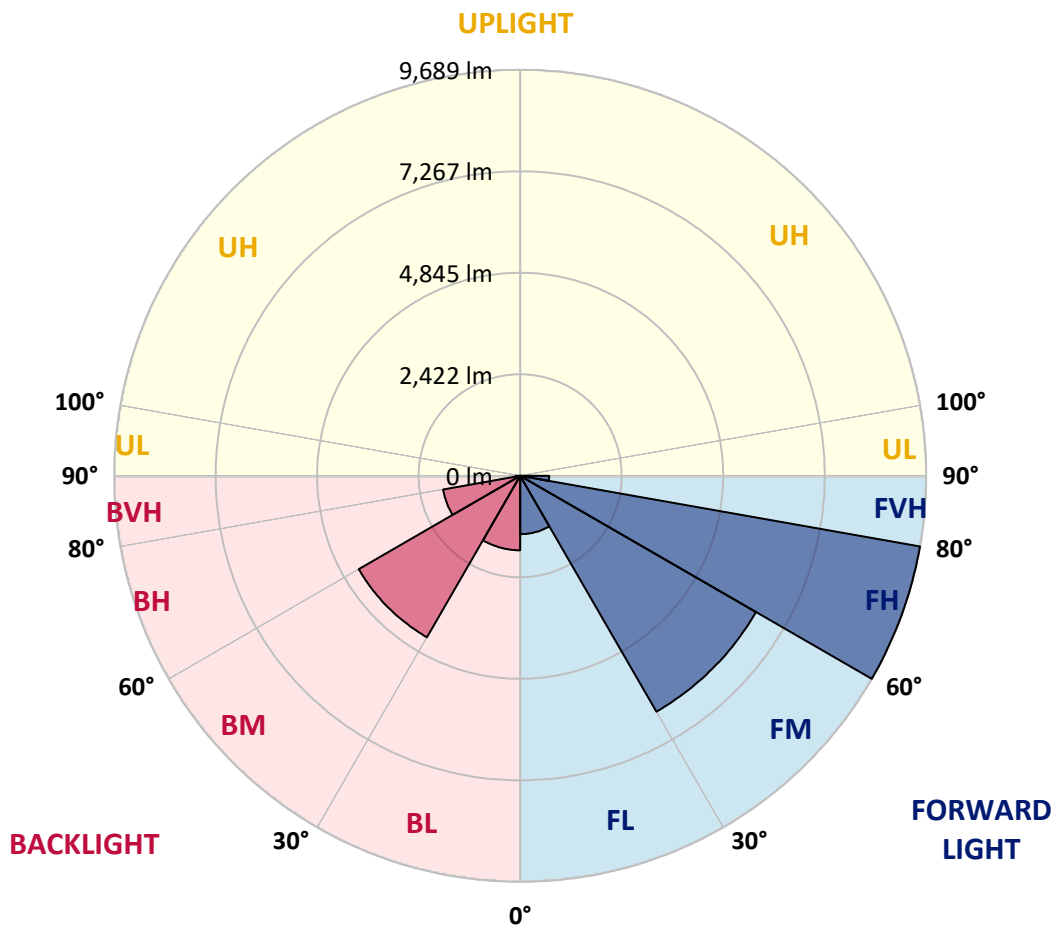
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1392.6	5.3			
FM (30°-60°)	6498.8	24.5			
FH (60°-80°)	9689.1	36.6			G4/12000
FVH (80°-90°)	691.1	2.6			G4/750
BL (0°-30°)	1776.7	6.7	B3/2500		
BM (30°-60°)	4449.1	16.8	B3/5000		
BH (60°-80°)	1866.3	7.0	B3/2500		G3/2500
BVH (80°-90°)	110.3	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Medium



REPORT NUMBER: P883474

CATALOG NUMBER: NAV-SB3D-830-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	3027.3	3027.3	3027.3	3027.3	3027.3	3027.3	3027.3	3027.3	3027.3	3027.3	3027.3
2.5°	2981.0	2997.9	2993.6	2988.0	2988.0	2989.4	2988.0	2997.9	3007.7	3017.5	3033.0
5°	3011.9	3028.7	3020.3	3013.3	3007.7	3006.3	3002.1	3000.7	3006.3	3018.9	3040.0
7.5°	3072.3	3089.1	3076.5	3063.8	3052.6	3047.0	3041.4	3033.0	3028.7	3035.8	3065.2
10°	3139.7	3156.5	3141.1	3118.6	3100.4	3093.3	3087.7	3079.3	3073.7	3077.9	3110.2
12.5°	3207.1	3223.9	3202.9	3172.0	3148.1	3143.9	3136.9	3134.1	3132.6	3131.2	3163.5
15°	3270.3	3284.3	3257.6	3221.1	3195.8	3188.8	3181.8	3186.0	3193.0	3201.5	3238.0
17.5°	3319.4	3333.4	3294.1	3246.4	3222.5	3219.7	3215.5	3229.5	3249.2	3270.3	3315.2
20°	3364.3	3378.4	3327.8	3263.2	3235.2	3235.2	3236.6	3266.0	3294.1	3325.0	3386.8
22.5°	3427.5	3438.8	3377.0	3288.5	3247.8	3250.6	3261.8	3291.3	3326.4	3368.5	3454.2
25°	3521.6	3530.0	3454.2	3336.2	3289.9	3298.3	3308.2	3322.2	3355.9	3405.1	3520.2
27.5°	3673.2	3680.3	3580.6	3420.5	3350.3	3364.3	3378.4	3368.5	3384.0	3426.1	3573.5
30°	3886.7	3890.9	3764.5	3552.5	3452.8	3459.8	3462.6	3421.9	3392.4	3426.1	3611.5
32.5°	4139.4	4138.0	3987.8	3712.6	3569.3	3562.3	3538.4	3458.4	3389.6	3419.1	3645.2
35°	4531.2	4515.7	4322.0	3937.2	3701.3	3657.8	3601.6	3499.1	3403.6	3412.1	3674.6
37.5°	5179.9	5132.2	4864.0	4305.1	3897.9	3787.0	3704.1	3565.1	3434.5	3409.3	3709.8
40°	5911.5	5851.1	5556.2	4809.2	4192.8	4014.5	3881.1	3659.2	3485.1	3421.9	3761.7
42.5°	6779.2	6693.6	6376.2	5403.2	4566.3	4307.9	4107.1	3778.6	3559.5	3462.6	3831.9
45°	7845.0	7731.2	7281.9	6072.9	5036.7	4692.7	4424.5	3959.7	3673.2	3541.3	3937.2
47.5°	8921.9	8950.0	8311.1	6839.6	5601.1	5167.3	4821.8	4232.1	3838.9	3667.6	4107.1
50°	10066.3	10086.0	9334.8	7689.1	6241.4	5703.6	5268.4	4536.8	4069.2	3847.4	4361.3
52.5°	10959.4	10962.2	10264.3	8577.9	6908.4	6293.4	5750.0	4885.0	4336.0	4086.1	4699.7
55°	11518.2	11511.2	10915.8	9419.0	7675.1	6912.6	6283.6	5281.0	4661.8	4366.9	5125.1
57.5°	11924.0	11902.9	11365.2	10142.1	8492.3	7644.2	6887.3	5730.3	5046.5	4701.1	5685.4
60°	12078.5	12065.8	11669.9	10767.0	9351.6	8453.0	7583.8	6233.0	5483.2	5095.6	6405.7
62.5°	12137.4	12161.3	11968.9	11372.2	10271.3	9348.8	8349.0	6834.0	5974.6	5542.2	7165.4
65°	12345.2	12388.8	12349.5	12164.1	11310.4	10397.7	9364.2	7548.7	6511.0	6021.0	7958.7
67.5°	12756.7	12800.2	12817.0	13111.9	12579.7	11705.0	10630.8	8438.9	7138.7	6518.0	8555.5
70°	12746.8	12734.2	13031.9	13865.9	14169.2	13514.9	12338.2	9534.1	7887.1	6930.9	8631.3
72.5°	11602.5	11501.4	12204.8	13857.5	15491.9	15404.9	14423.4	10946.7	8533.0	6981.4	7489.7
75°	8704.3	8434.7	9677.4	12488.5	15712.4	16477.6	15748.9	11822.9	8379.9	6168.4	5212.2
77.5°	3722.4	3451.4	4915.9	9244.9	14062.5	15403.5	14532.9	10314.9	6689.3	4079.0	2559.8
80°	974.5	973.1	1485.6	4191.4	9563.6	11375.0	9979.3	6661.3	3822.1	1457.5	706.3
82.5°	403.0	393.2	546.2	1630.2	4673.0	6383.2	5209.4	2971.2	1380.3	394.6	234.5
85°	150.2	148.8	265.4	563.1	1648.5	2632.8	1905.4	759.6	344.0	192.4	105.3
87.5°	42.1	40.7	57.6	195.2	401.6	609.4	325.8	125.0	96.9	75.8	30.9
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: P883474

CATALOG NUMBER: NAV-SB3D-830-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3027.3	3027.3	3027.3	3027.3	3027.3	3027.3	3027.3	3027.3	3027.3	3027.3	3027.3
2.5°	3037.2	3044.2	3056.8	3066.7	3079.3	3093.3	3113.0	3125.6	3138.3	3146.7	3141.1
5°	3049.8	3065.2	3097.5	3129.8	3167.8	3202.9	3243.6	3273.1	3296.9	3304.0	3306.8
7.5°	3077.9	3103.2	3157.9	3212.7	3273.1	3330.6	3389.6	3440.2	3480.9	3496.3	3497.7
10°	3127.0	3160.7	3238.0	3315.2	3395.2	3483.7	3559.5	3632.5	3690.1	3714.0	3715.4
12.5°	3188.8	3230.9	3332.0	3438.8	3549.7	3671.8	3770.1	3860.0	3931.6	3963.9	3963.9
15°	3268.9	3323.6	3452.8	3596.0	3758.9	3928.8	4053.8	4153.5	4233.5	4272.8	4270.0
17.5°	3355.9	3428.9	3591.8	3808.0	4041.1	4264.4	4410.4	4483.4	4566.3	4604.2	4602.8
20°	3440.2	3530.0	3763.1	4077.6	4388.0	4625.3	4743.2	4762.9	4768.5	4772.7	4783.9
22.5°	3527.2	3648.0	3977.9	4417.4	4750.2	4914.5	4931.4	4847.1	4729.2	4674.4	4689.8
25°	3622.7	3782.8	4258.8	4792.3	5061.9	5081.6	4952.4	4747.4	4524.2	4421.7	4437.1
27.5°	3715.4	3938.6	4595.8	5150.4	5286.6	5113.9	4835.9	4545.2	4275.6	4167.5	4180.1
30°	3808.0	4117.0	4967.9	5463.5	5389.1	5033.9	4651.9	4327.6	4056.6	3942.8	3955.5
32.5°	3902.1	4324.8	5396.1	5689.6	5370.9	4864.0	4423.1	4083.3	3844.5	3725.2	3740.6
35°	4008.8	4580.3	5801.9	5813.2	5248.7	4614.0	4121.2	3791.2	3583.4	3487.9	3509.0
37.5°	4147.8	4904.7	6160.0	5844.1	5035.3	4247.5	3746.3	3445.8	3274.5	3230.9	3261.8
40°	4320.6	5295.0	6433.8	5794.9	4719.3	3802.4	3336.2	3096.1	2999.3	3009.1	3042.8
42.5°	4545.2	5731.7	6626.2	5668.5	4279.8	3343.3	2976.8	2870.1	2916.4	2955.7	2992.2
45°	4837.3	6185.3	6745.5	5453.7	3782.8	2954.3	2764.8	2790.0	2825.1	2829.4	2857.4
47.5°	5210.8	6644.4	6824.1	5129.3	3275.9	2680.5	2630.0	2635.6	2628.6	2599.1	2621.5
50°	5677.0	7090.9	6894.4	4699.7	2844.8	2509.2	2441.8	2422.2	2325.3	2229.8	2242.4
52.5°	6207.7	7500.9	6923.8	4166.1	2509.2	2366.0	2256.5	2132.9	1951.8	1922.3	1932.1
55°	6797.5	7880.1	6848.0	3510.4	2227.0	2182.0	2016.4	1867.5	1847.9	1822.6	1826.8
57.5°	7502.3	8288.7	6693.6	2778.8	1937.7	1967.2	1805.7	1822.6	1787.5	1748.2	1741.1
60°	8273.2	8711.3	6422.6	2111.8	1638.6	1699.0	1751.0	1749.6	1739.7	1707.4	1696.2
62.5°	8966.9	8989.3	5889.0	1617.6	1376.1	1491.2	1633.0	1631.6	1623.2	1604.9	1597.9
65°	9379.7	8947.2	4998.8	1273.6	1159.8	1319.9	1472.9	1484.2	1485.6	1484.2	1484.2
67.5°	9306.7	8454.4	3777.2	1013.8	981.5	1145.8	1314.3	1329.7	1341.0	1343.8	1346.6
70°	8481.0	7371.8	2462.9	808.8	822.8	992.7	1164.0	1179.5	1189.3	1200.5	1206.2
72.5°	6610.7	5420.0	1409.8	654.3	683.8	860.7	1015.2	1033.5	1039.1	1060.1	1068.6
75°	4028.5	3187.4	761.0	515.3	561.7	735.8	867.8	888.8	898.7	923.9	926.7
77.5°	1915.3	1380.3	433.9	401.6	452.1	601.0	733.0	756.8	730.2	744.2	733.0
80°	647.3	512.5	273.8	306.1	345.4	469.0	586.9	610.8	554.6	551.8	546.2
82.5°	226.1	207.8	174.1	203.6	223.3	335.6	443.7	474.6	412.8	411.4	391.8
85°	88.5	84.2	96.9	110.9	133.4	206.4	292.1	307.5	254.2	205.0	202.2
87.5°	18.3	19.7	23.9	25.3	40.7	71.6	105.3	129.2	102.5	87.1	80.0
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)