

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: P270684

Luminaire Tested: **NAV-AF-06-D-UNV-SL4-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270684  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24284)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-06-D-UNV-SL4-7027-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24122.9 lumens  
Efficiency: N/A  
Efficacy: 96.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G4

Input Watts (W): 249  
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

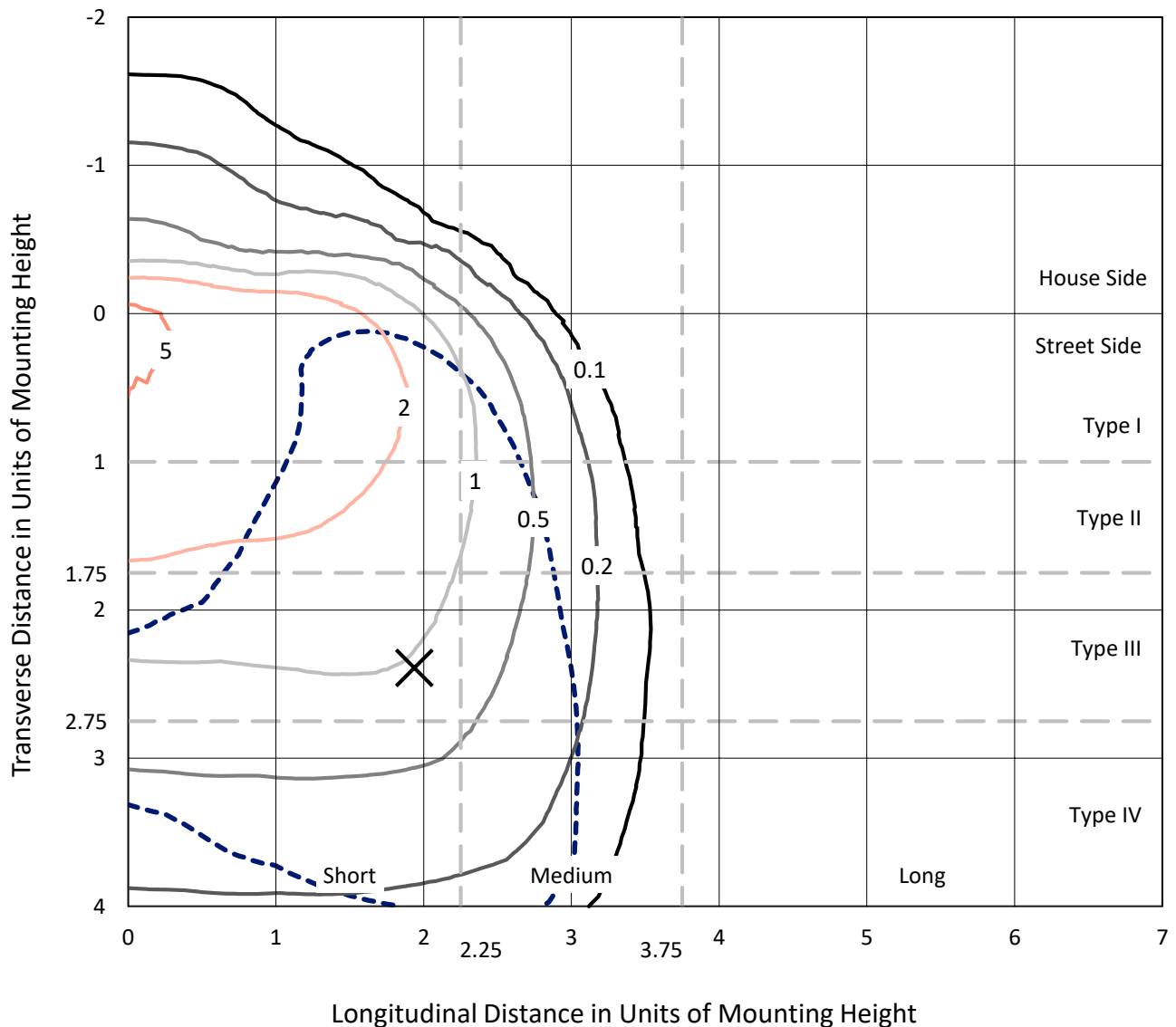


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

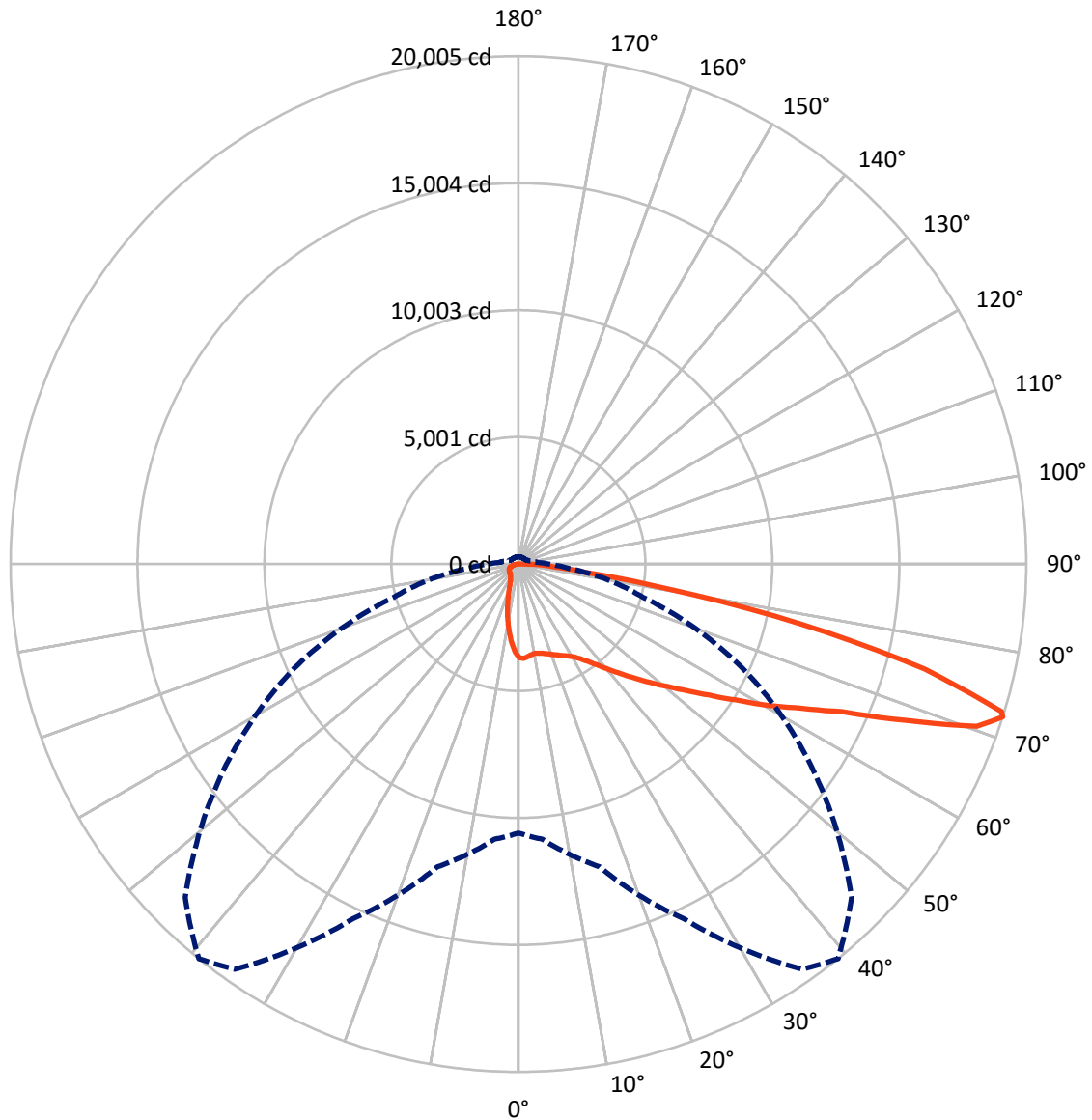


Based on 25 foot mounting height. Maximum calculated value = 5.9 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral    - - - Horizontal Cone Through 72-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2766.0	0.0	2766.0
	% Fixture	11.5	0.0	11.5
<b>Street Side</b>	Lumens	21356.8	0.0	21356.8
	% Fixture	88.5	0.0	88.5
<b>Total</b>	Lumens	24122.9	0.0	24122.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	316.6	1.3
10°-20°	795.5	3.3
20°-30°	1239.7	5.1
30°-40°	1908.8	7.9
40°-50°	3111.8	12.9
50°-60°	4835.3	20.0
60°-70°	6471.9	26.8
70°-80°	4654.2	19.3
80°-90°	789.0	3.3
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°	24122.9	100.0
0°-180°	24122.9	100.0

**Coefficient of Utilization**



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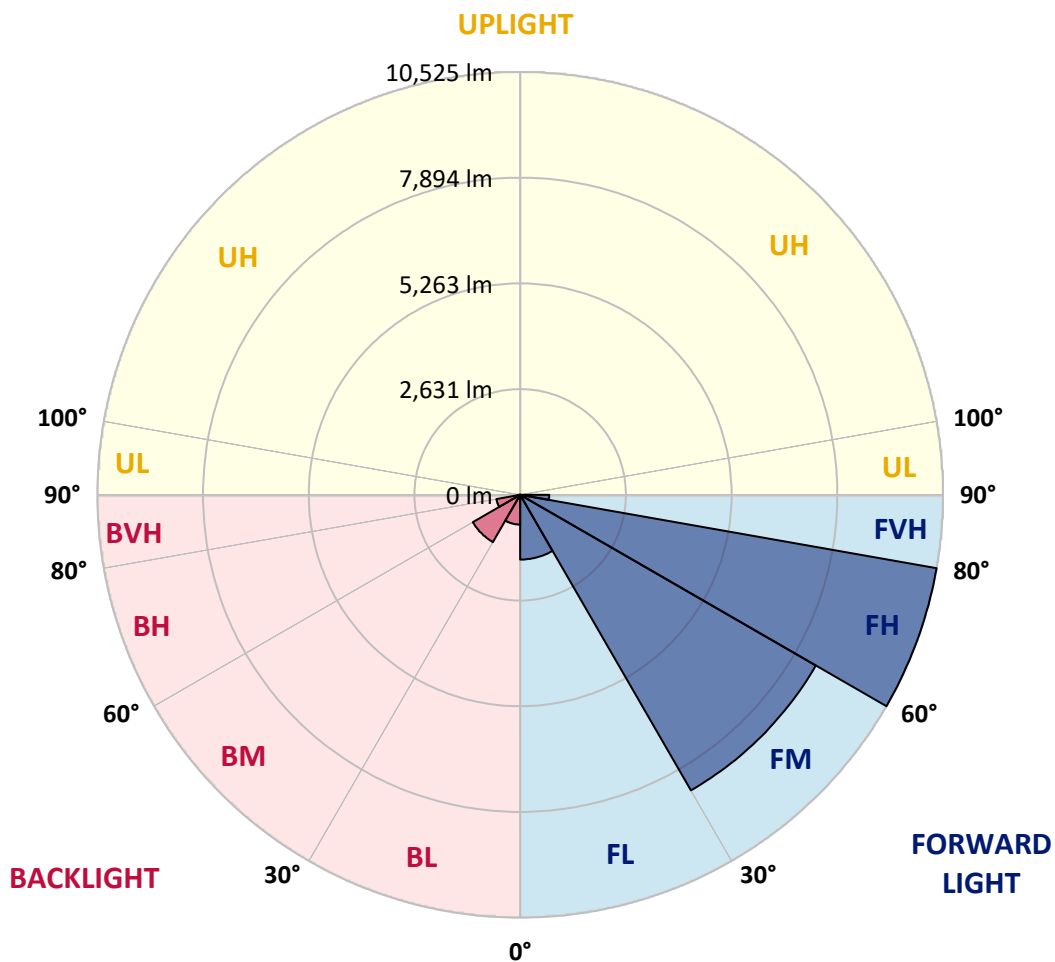
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1611.4	6.7			
FM	(30°-60°)	8496.5	35.2			
FH	(60°-80°)	10525.2	43.6			G4/12000
FVH	(80°-90°)	723.8	3.0			G4/750
BL	(0°-30°)	740.5	3.1	B2/1000		
BM	(30°-60°)	1359.4	5.6	B2/2500		
BH	(60°-80°)	601.0	2.5	B2/1000		G2/1000
BVH	(80°-90°)	65.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	3683.9	3683.9	3683.9	3683.9	3683.9	3683.9	3683.9	3683.9	3683.9	3683.9	3683.9
2.5°	3763.3	3764.9	3760.0	3745.6	3732.5	3726.1	3714.8	3695.4	3669.4	3651.6	3637.1
5°	3727.6	3732.5	3729.4	3705.1	3682.4	3669.4	3651.6	3624.1	3590.0	3575.6	3541.5
7.5°	3700.2	3703.4	3693.7	3666.3	3622.4	3606.2	3573.8	3538.2	3507.5	3486.4	3446.0
10°	3680.7	3683.9	3676.0	3648.3	3599.8	3580.4	3541.5	3502.6	3462.2	3436.2	3390.9
12.5°	3653.2	3659.8	3659.8	3646.8	3614.4	3601.5	3562.6	3520.5	3483.2	3455.7	3398.9
15°	3648.3	3656.6	3671.1	3669.4	3659.8	3650.1	3619.2	3577.1	3544.7	3512.4	3442.8
17.5°	3688.9	3706.6	3735.8	3745.6	3739.0	3717.9	3682.4	3643.5	3608.0	3577.1	3491.4
20°	3790.8	3800.5	3844.2	3863.7	3831.4	3800.5	3753.6	3703.4	3671.1	3646.8	3536.6
22.5°	3944.6	3957.7	3993.2	3994.9	3926.9	3889.7	3829.7	3768.2	3737.4	3727.6	3598.3
25°	4190.9	4187.5	4197.3	4156.8	4033.7	3990.0	3917.1	3846.0	3824.9	3844.2	3688.9
27.5°	4485.5	4477.4	4446.7	4341.5	4155.2	4098.5	4011.1	3948.0	3948.0	3993.2	3811.9
30°	4825.6	4817.5	4717.1	4540.7	4299.4	4234.6	4142.3	4075.9	4109.8	4197.3	3978.8
32.5°	5185.1	5156.0	5015.1	4778.7	4505.0	4433.8	4344.7	4276.7	4341.5	4490.4	4218.4
35°	5523.6	5507.4	5334.0	5054.0	4770.5	4710.6	4649.1	4564.8	4668.5	4900.2	4556.8
37.5°	5873.4	5860.5	5648.3	5350.2	5094.5	5054.0	5002.1	4943.8	5110.6	5415.1	5015.1
40°	6263.6	6237.7	5970.5	5672.5	5471.8	5452.4	5424.8	5408.5	5677.4	6130.8	5594.9
42.5°	6705.7	6655.5	6310.6	6027.2	5883.1	5899.3	5884.6	5949.5	6360.8	6956.7	6284.6
45°	7211.0	7110.5	6649.1	6404.5	6338.1	6402.8	6433.7	6598.8	7168.8	7910.5	7055.5
47.5°	7683.7	7554.1	7019.9	6814.2	6851.5	6963.1	7050.5	7342.0	8054.7	8852.9	7842.5
50°	8119.4	7973.6	7416.5	7238.5	7419.8	7578.6	7759.9	8171.2	8997.1	9822.8	8564.7
52.5°	8441.6	8336.4	7813.3	7701.6	8072.3	8282.9	8572.7	9092.6	9949.2	10747.5	9209.2
55°	8691.0	8634.2	8200.3	8232.6	8810.8	9112.0	9463.5	10060.9	10956.4	11576.6	9727.3
57.5°	8979.2	8937.1	8642.5	8873.9	9727.3	10106.3	10520.8	11184.7	11915.1	12307.0	10133.8
60°	9283.7	9283.7	9134.7	9646.4	10873.9	11307.9	11720.7	12237.3	12870.5	12964.3	10299.0
62.5°	9513.6	9573.5	9627.0	10468.9	11962.0	12501.4	12954.6	13450.2	13859.9	13288.3	9910.3
65°	9847.2	9975.0	10276.3	11419.6	13309.4	14015.4	14627.6	15043.6	14661.4	13030.9	8642.5
67.5°	10420.3	10609.9	11251.1	12834.9	15372.3	16429.8	17024.0	16305.1	14504.5	11409.8	6619.9
70°	10937.0	11204.2	12300.5	14630.8	18054.0	19152.0	18878.2	16012.0	12632.4	8363.8	4072.6
72°	10593.7	10885.2	12349.1	15412.8	19487.1	20005.3	18562.4	14190.3	9761.3	5104.2	2008.0
72.5°	10368.6	10671.4	12191.9	15393.4	19526.0	19896.7	18123.7	13466.4	8861.1	4466.2	1624.1
75°	8661.8	8920.9	10483.6	13642.9	17207.0	16526.9	14143.3	8715.3	4072.6	1442.9	835.6
77.5°	5656.4	5854.0	7228.8	9452.1	12052.6	11398.6	8608.4	4080.7	1526.9	876.0	628.4
80°	2842.0	2982.8	3868.6	4969.8	6504.8	5985.0	3973.8	1973.9	1021.8	633.1	493.9
82.5°	1977.2	2106.7	2663.8	2537.5	2718.9	2631.4	1868.7	1646.9	764.3	399.9	259.2
85°	1658.2	1792.6	2203.9	1808.7	1480.0	1349.0	1339.3	1556.1	505.2	197.5	218.6
87.5°	1446.1	1650.0	1818.4	1321.3	1015.4	895.5	986.2	1426.7	160.3	108.4	66.4
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°	3683.9	3683.9	3683.9	3683.9	3683.9	3683.9	3683.9	3683.9	3683.9	3683.9	3683.9
2.5°	3612.8	3608.0	3583.6	3546.4	3518.8	3501.1	3467.0	3465.4	3468.6	3439.5	3450.7
5°	3510.8	3491.4	3428.1	3342.4	3272.6	3206.3	3133.4	3109.2	3088.1	3044.4	3049.1
7.5°	3403.9	3369.8	3259.7	3118.8	2984.3	2861.5	2739.9	2680.1	2634.6	2578.0	2578.0
10°	3340.6	3287.3	3118.8	2913.3	2699.4	2519.7	2338.3	2229.9	2150.5	2077.6	2072.7
12.5°	3337.5	3256.4	3021.7	2738.4	2445.1	2192.7	1944.8	1778.0	1659.8	1574.0	1565.8
15°	3363.3	3250.0	2940.7	2574.7	2205.6	1876.7	1570.7	1358.6	1208.0	1112.6	1102.8
17.5°	3386.0	3242.0	2853.2	2403.1	1972.4	1572.4	1232.4	1012.1	869.6	791.9	783.7
20°	3407.1	3224.0	2741.5	2221.8	1714.9	1287.5	963.5	785.4	691.4	647.8	642.8
22.5°	3437.9	3207.8	2624.9	2017.8	1462.4	1047.8	795.1	667.3	617.0	595.9	592.7
25°	3488.1	3209.6	2511.7	1808.7	1230.7	872.9	688.2	609.0	581.4	566.8	566.8
27.5°	3560.9	3229.0	2399.8	1596.6	1034.8	753.0	625.1	578.1	560.4	549.0	545.7
30°	3667.8	3264.6	2281.7	1395.8	879.4	670.5	587.9	558.7	544.2	534.4	532.8
32.5°	3823.2	3327.7	2157.0	1212.9	761.0	612.1	560.4	542.4	531.2	523.1	521.5
35°	4054.8	3439.5	2035.5	1057.5	677.0	570.1	537.6	523.1	516.5	513.3	511.8
37.5°	4394.9	3619.2	1920.5	935.9	621.8	542.4	515.0	506.9	503.6	503.6	503.6
40°	4822.5	3855.6	1816.9	850.2	591.1	521.5	498.7	492.4	492.4	493.9	493.9
42.5°	5342.2	4152.0	1727.8	791.9	573.3	506.9	487.4	484.1	482.6	482.6	484.1
45°	5946.2	4501.8	1672.7	746.5	560.4	498.7	479.3	477.7	471.3	467.9	467.9
47.5°	6553.5	4875.8	1669.5	720.6	544.2	489.0	471.3	471.3	458.2	451.8	453.5
50°	7120.2	5211.0	1705.2	714.2	534.4	474.5	463.2	464.8	446.9	438.8	437.2
52.5°	7576.8	5466.8	1748.9	722.2	534.4	461.5	448.6	456.7	437.2	427.6	425.8
55°	7929.9	5644.9	1765.1	740.1	540.9	450.2	435.6	448.6	434.1	421.0	421.0
57.5°	8182.5	5701.7	1695.5	748.1	550.7	448.6	422.7	446.9	438.8	422.7	422.7
60°	8090.2	5372.9	1436.4	717.3	549.0	445.3	413.0	450.2	455.0	437.2	437.2
62.5°	7369.6	4495.3	1153.0	647.8	521.5	434.1	401.6	446.9	466.4	459.9	456.7
65°	5999.6	3297.0	893.9	565.2	474.5	409.6	377.3	417.8	440.4	446.9	448.6
67.5°	4228.1	2087.3	694.7	481.0	416.2	374.1	349.8	369.3	377.3	380.5	387.0
70°	2312.3	1130.2	552.2	404.9	356.3	338.4	320.6	322.2	319.0	315.8	319.0
72°	1161.1	738.4	466.4	351.3	315.8	304.4	296.4	291.5	291.5	286.6	288.3
72.5°	999.2	686.7	450.2	338.4	306.1	296.4	289.9	285.0	283.3	280.1	281.8
75°	665.6	544.2	375.8	283.3	260.7	254.2	257.5	252.7	254.2	250.9	252.7
77.5°	537.6	467.9	319.0	239.7	223.5	213.7	220.3	221.8	225.0	221.8	220.3
80°	450.2	398.4	267.2	197.5	186.2	178.1	181.4	192.6	194.4	184.6	183.0
82.5°	291.5	320.6	210.6	153.8	142.6	139.2	147.3	158.7	162.0	148.9	145.7
85°	244.5	257.5	152.3	105.2	94.0	90.6	106.9	118.1	126.3	113.4	110.1
87.5°	68.0	126.3	74.5	50.1	42.1	42.1	51.8	61.5	72.9	74.5	74.5
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)