

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: P196566

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-7030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196566  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24257)  
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-SL2-7030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 615mA 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: 22504.1 lumens  
Efficiency: N/A  
Efficacy: 116.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type II - Medium - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

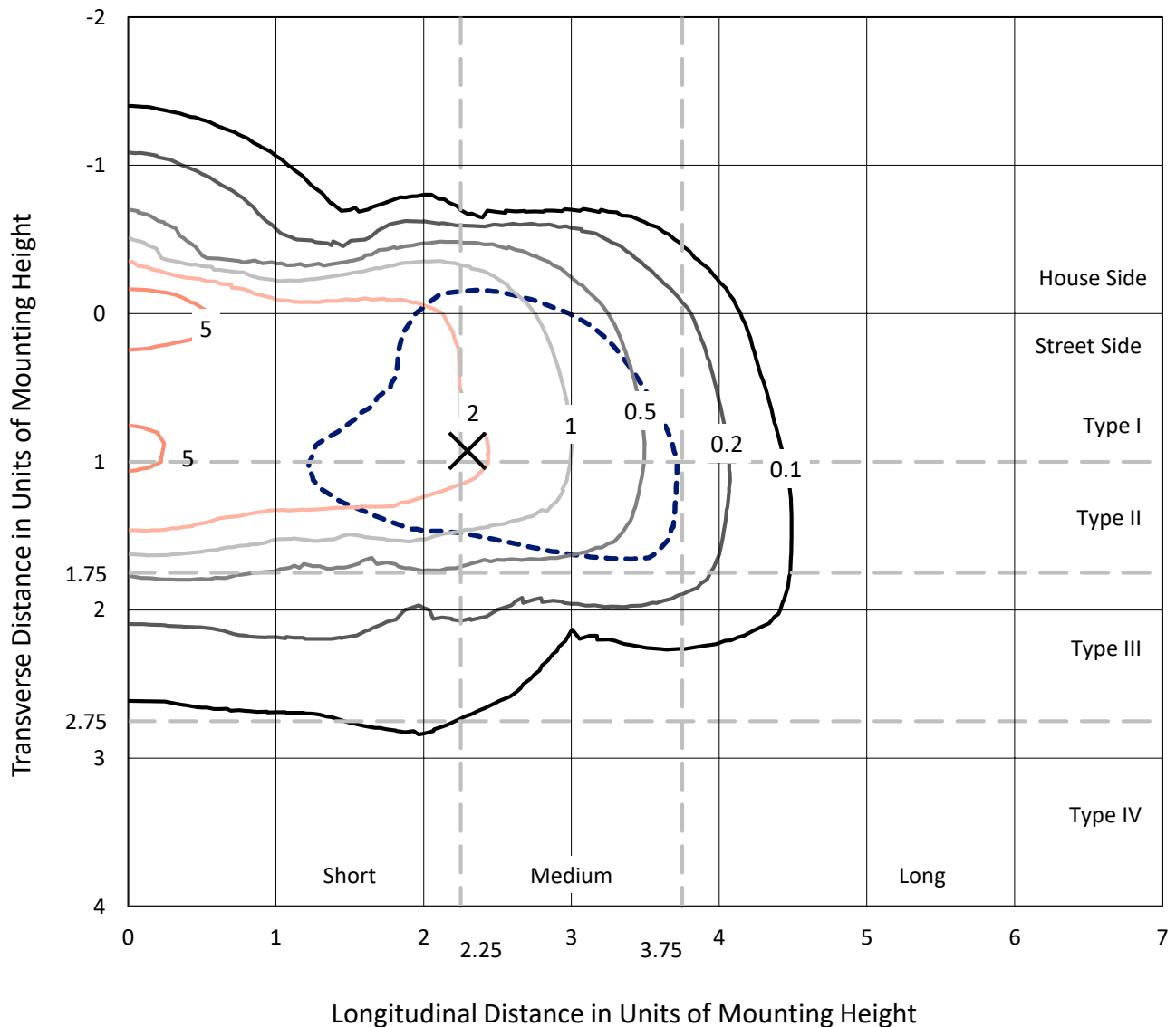
Input Watts (W): 193  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

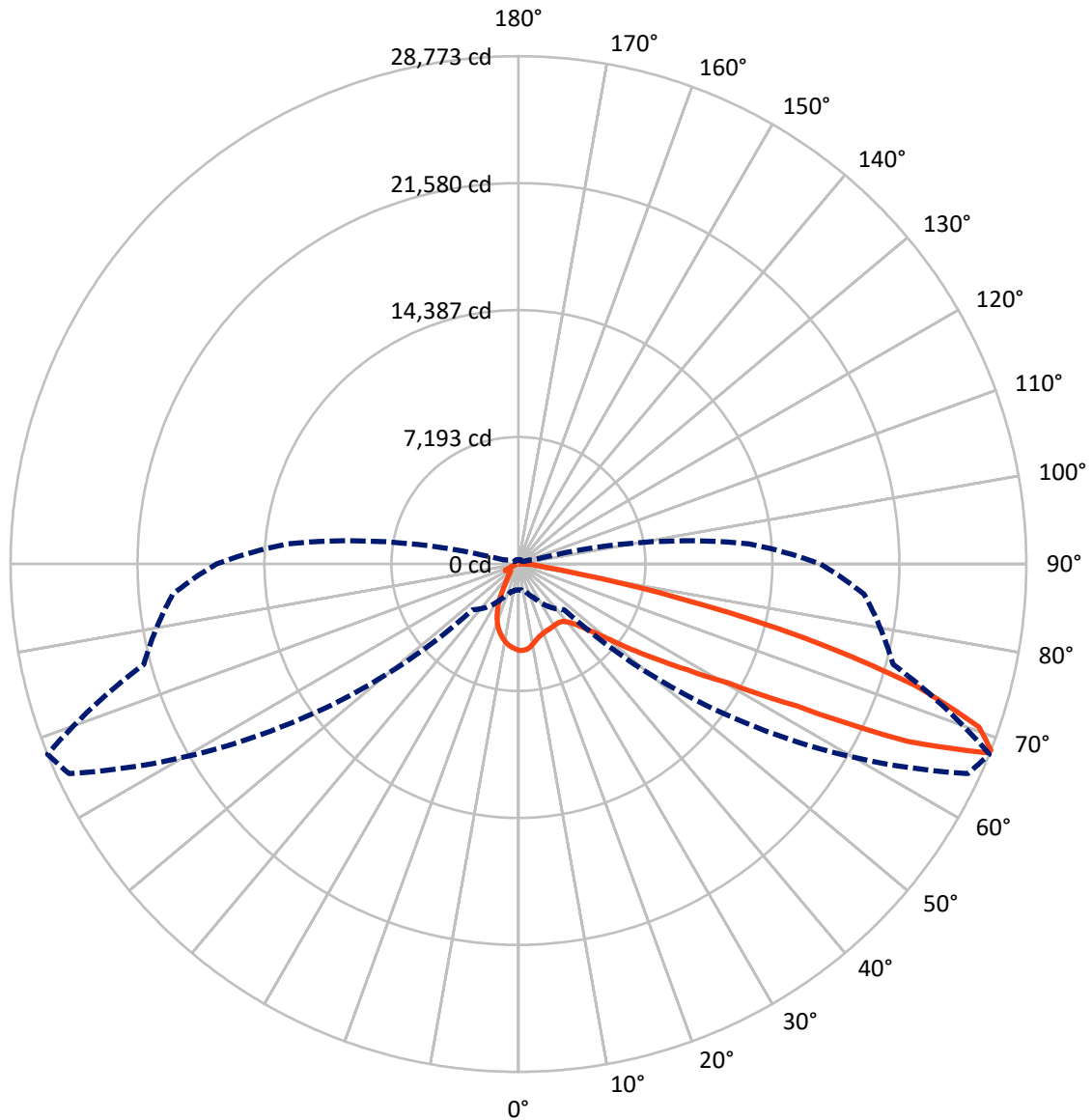
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc  
 Type II - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3681.8	0.0	3681.8
	% Fixture	16.4	0.0	16.4
<b>Street Side</b>	Lumens	18822.4	0.0	18822.4
	% Fixture	83.6	0.0	83.6
<b>Total</b>	Lumens	22504.1	0.0	22504.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	419.5	1.9
10°-20°	973.1	4.3
20°-30°	1316.1	5.8
30°-40°	1855.7	8.2
40°-50°	3051.4	13.6
50°-60°	4729.9	21.0
60°-70°	6132.7	27.3
70°-80°	3519.3	15.6
80°-90°	506.4	2.3
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°	22504.1	100.0
0°-180°	22504.1	100.0



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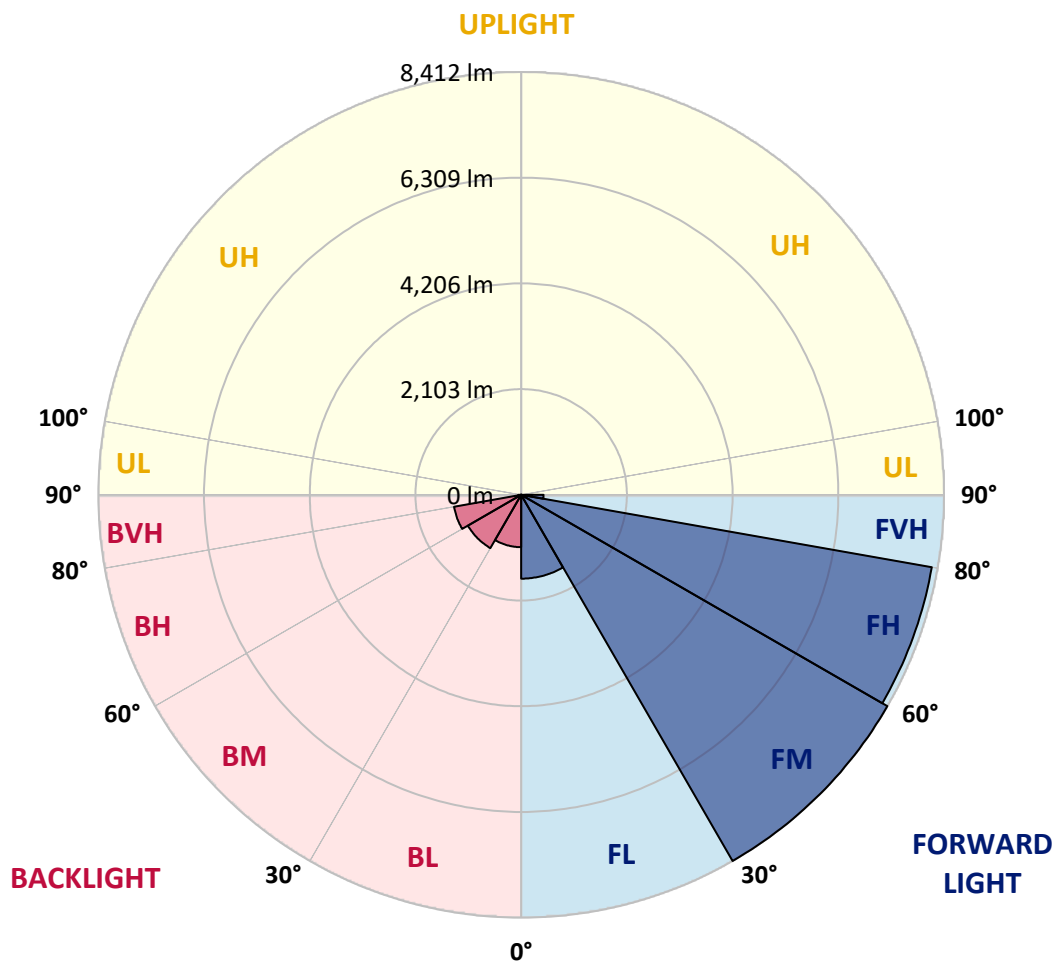
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1667.9	7.4			
FM	(30°-60°)	8412.4	37.4			
FH	(60°-80°)	8296.1	36.9			G4/12000
FVH	(80°-90°)	446.0	2.0			G3/500
BL	(0°-30°)	1040.9	4.6	B3/2500		
BM	(30°-60°)	1224.6	5.4	B2/2500		
BH	(60°-80°)	1355.9	6.0	B3/2500		G3/2500
BVH	(80°-90°)	60.4	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 II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	4896.7	4896.7	4896.7	4896.7	4896.7	4896.7	4896.7	4896.7	4896.7	4896.7	4896.7
2.5°	4765.9	4804.1	4804.1	4832.0	4857.0	4877.6	4895.3	4895.3	4895.3	4883.5	4873.2
5°	4264.6	4316.1	4323.4	4394.0	4486.5	4599.7	4726.2	4837.9	4860.0	4901.2	4917.3
7.5°	3916.2	3932.3	3960.3	4008.8	4102.9	4242.5	4441.0	4690.9	4751.1	4880.5	4948.2
10°	3669.3	3682.5	3706.0	3754.4	3839.7	3966.1	4161.6	4486.5	4586.4	4815.8	4949.7
12.5°	3488.4	3498.7	3520.8	3564.8	3651.6	3764.7	3964.7	4302.8	4426.3	4751.1	4970.2
15°	3347.2	3364.9	3382.5	3425.2	3513.3	3622.2	3825.0	4169.0	4302.8	4699.7	5008.5
17.5°	3291.4	3300.2	3303.1	3325.2	3404.6	3514.9	3717.8	4075.0	4213.1	4658.6	5037.8
20°	3326.7	3328.1	3298.7	3284.2	3329.6	3431.1	3628.1	4004.4	4145.6	4621.7	5049.6
22.5°	3481.0	3481.0	3404.6	3339.9	3309.0	3372.3	3567.8	3955.8	4108.8	4594.0	5049.6
25°	3775.0	3761.8	3642.7	3514.9	3378.2	3351.6	3529.5	3925.0	4080.9	4579.2	5030.6
27.5°	4161.6	4149.8	3998.5	3808.9	3561.9	3395.8	3516.3	3900.0	4052.9	4557.1	4989.4
30°	4632.0	4621.7	4449.8	4201.3	3836.7	3535.4	3547.2	3882.4	4030.8	4520.4	4920.3
32.5°	5101.0	5095.2	4958.4	4704.1	4216.1	3772.0	3628.1	3879.5	4019.1	4476.3	4836.5
35°	5572.9	5572.9	5489.0	5274.5	4726.2	4127.9	3797.1	3933.8	4041.2	4452.8	4764.4
37.5°	6269.8	6241.8	6086.0	5864.0	5368.6	4589.4	4070.6	4048.5	4126.4	4492.4	4740.9
40°	7348.7	7267.8	6878.3	6505.0	6069.8	5180.4	4470.4	4270.5	4317.5	4627.6	4796.7
42.5°	8477.8	8349.8	7833.9	7237.0	6794.5	5909.5	4995.3	4630.6	4629.1	4889.4	4974.6
45°	9446.4	9380.4	8821.7	8064.7	7622.2	6729.9	5658.2	5165.7	5112.8	5295.0	5317.1
47.5°	10009.5	9965.4	9628.8	8940.8	8604.1	7698.6	6499.1	5908.0	5808.1	5916.9	5883.1
50°	9853.6	9896.2	9799.3	9447.9	9659.6	9059.9	7570.7	6925.4	6735.8	6844.5	6762.2
52.5°	9033.3	9148.1	9234.8	9302.5	10266.8	10881.2	8917.3	8195.4	8038.2	8019.1	7939.7
55°	7556.1	7738.3	8011.8	8508.6	10103.5	12343.9	11269.3	9731.6	9502.3	9381.8	9412.6
57.5°	5142.2	5418.6	6008.0	6953.3	9255.4	12967.2	14747.4	11716.2	11328.1	10898.8	10998.8
60°	2832.8	3063.5	3764.7	4717.4	7319.3	12874.6	17830.1	14941.4	13719.9	12582.1	12787.8
62.5°	1833.2	1883.1	2405.1	3222.3	4492.4	11366.4	19542.6	20332.0	17743.3	14801.8	15091.4
65°	1473.0	1508.3	1764.1	2599.1	3129.7	7311.9	19619.1	25924.2	24217.5	17818.3	17827.2
67.5°	1439.2	1455.4	1603.8	2186.0	2935.7	3980.9	16958.3	28129.3	28524.7	21378.8	19657.4
68°	1459.7	1478.9	1628.8	2118.3	2934.1	3669.3	15673.6	28095.4	28773.1	21974.1	19657.4
70°	1287.7	1311.2	1661.2	2191.8	2809.3	3154.8	10732.7	26603.3	27694.1	23342.7	18651.8
72.5°	673.2	654.1	821.7	1730.2	3162.1	3286.9	5669.9	22225.5	23498.6	21618.4	16114.5
75°	524.8	477.8	460.1	683.5	2781.3	3409.0	3292.8	15797.0	16758.4	15583.8	10771.0
77.5°	494.0	436.6	402.8	404.3	1224.6	3547.2	2663.7	9296.6	9296.6	7434.0	3437.0
80°	396.9	343.9	322.0	367.5	591.0	3269.4	2779.9	4236.6	3613.3	1921.4	946.7
82.5°	261.6	233.7	235.2	298.4	448.4	2183.0	3219.5	2091.9	1571.4	851.1	557.1
85°	166.1	142.6	158.8	208.8	335.2	973.2	3187.1	1453.9	1040.8	477.8	277.8
87.5°	83.8	64.7	79.4	108.8	204.4	279.2	2624.0	1298.0	771.8	198.5	151.5
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°	4896.7	4896.7	4896.7	4896.7	4896.7	4896.7	4896.7	4896.7	4896.7	4896.7	4896.7
2.5°	4873.2	4840.8	4824.7	4798.2	4765.9	4733.5	4711.5	4701.2	4695.3	4698.2	4696.7
5°	4908.5	4865.9	4796.7	4698.2	4596.7	4489.5	4407.2	4343.9	4304.3	4292.5	4289.5
7.5°	4934.9	4873.2	4743.8	4564.5	4391.0	4202.8	4042.6	3914.8	3828.0	3788.2	3786.8
10°	4930.6	4851.1	4646.8	4382.2	4127.9	3851.5	3600.1	3385.5	3229.7	3154.8	3151.8
12.5°	4934.9	4826.1	4527.7	4169.0	3804.4	3409.0	3035.7	2702.0	2469.7	2359.5	2355.0
15°	4952.6	4799.6	4405.7	3930.9	3426.7	2868.0	2334.5	1915.5	1703.8	1631.8	1631.8
17.5°	4951.1	4755.6	4264.6	3654.5	2978.3	2230.1	1593.5	1334.8	1314.2	1380.4	1390.7
20°	4921.7	4685.0	4082.3	3326.7	2452.0	1543.5	1080.5	1043.8	1208.4	1390.7	1411.2
22.5°	4876.1	4594.0	3872.0	2945.9	1839.1	1005.5	833.5	889.4	1112.8	1339.2	1371.5
25°	4812.9	4483.6	3631.0	2503.4	1223.0	723.3	695.3	764.4	921.7	1073.2	1096.6
27.5°	4720.3	4343.9	3367.8	2024.2	780.5	595.4	605.7	654.1	721.7	786.4	799.7
30°	4604.1	4180.8	3081.2	1493.6	592.4	532.2	549.8	579.2	608.6	649.8	658.7
32.5°	4486.5	4014.6	2782.9	1026.1	517.5	498.3	516.0	532.2	557.1	585.1	591.0
35°	4380.8	3860.3	2475.6	715.8	485.1	476.3	485.1	495.4	520.4	548.4	551.2
37.5°	4304.3	3733.9	2155.0	566.0	466.0	457.1	461.6	466.0	495.4	536.6	541.0
40°	4294.0	3650.2	1830.2	508.6	451.4	439.6	436.6	439.6	477.8	524.8	529.3
42.5°	4394.0	3654.5	1512.7	485.1	439.6	426.3	414.5	420.4	454.2	491.0	494.0
45°	4630.6	3757.4	1237.8	474.8	429.3	419.0	401.3	404.3	420.4	439.6	442.5
47.5°	5048.1	3982.3	1027.6	468.9	420.4	411.6	389.5	380.8	382.2	392.5	392.5
50°	5715.5	4358.7	899.6	463.0	413.1	396.9	371.9	354.3	349.8	355.7	357.2
52.5°	6710.7	5004.0	837.9	451.4	399.9	377.8	349.8	332.2	324.8	330.7	330.7
55°	8055.8	6034.5	808.5	435.2	383.7	354.3	329.3	314.5	308.6	313.1	313.1
57.5°	9589.0	7373.7	858.4	413.1	363.1	329.3	311.6	301.3	296.9	301.3	302.8
60°	11410.5	9126.0	1202.5	385.1	341.0	307.2	296.9	291.0	288.1	292.5	292.5
62.5°	13831.5	11457.5	1861.1	363.1	317.5	286.7	283.7	280.8	277.8	282.2	282.2
65°	16445.2	13578.7	1915.5	349.8	296.9	269.0	270.5	270.5	267.5	271.9	271.9
67.5°	17277.3	13394.9	1070.2	333.7	271.9	251.4	257.3	257.3	255.7	260.1	258.7
68°	17100.9	13103.9	932.0	329.3	267.5	246.9	252.8	254.3	252.8	257.3	255.7
70°	15786.8	11504.6	613.1	304.3	248.4	232.2	241.1	242.5	241.1	246.9	245.5
72.5°	13031.9	8629.1	452.8	266.0	225.0	213.2	222.1	223.4	225.0	230.7	229.3
75°	8276.3	4765.9	357.2	226.3	201.4	191.1	200.0	204.4	207.3	216.2	211.6
77.5°	2266.8	1446.5	289.6	192.7	173.5	169.1	175.0	180.9	183.8	194.1	186.8
80°	793.8	639.5	241.1	163.2	144.1	142.6	148.5	154.4	157.4	166.1	157.4
82.5°	482.2	417.5	192.7	128.0	113.2	111.8	119.1	125.0	128.0	128.0	122.1
85°	251.4	220.4	141.2	89.7	77.9	73.5	86.8	94.1	95.6	94.1	89.7
87.5°	141.2	125.0	75.0	42.6	35.3	36.7	45.6	55.8	60.3	58.8	55.8
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)