

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: P270668

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270668  
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-SL2-7027-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 2700K, 800mA 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: 24789.3 lumens  
Efficiency: N/A  
Efficacy: 99.6 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): 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

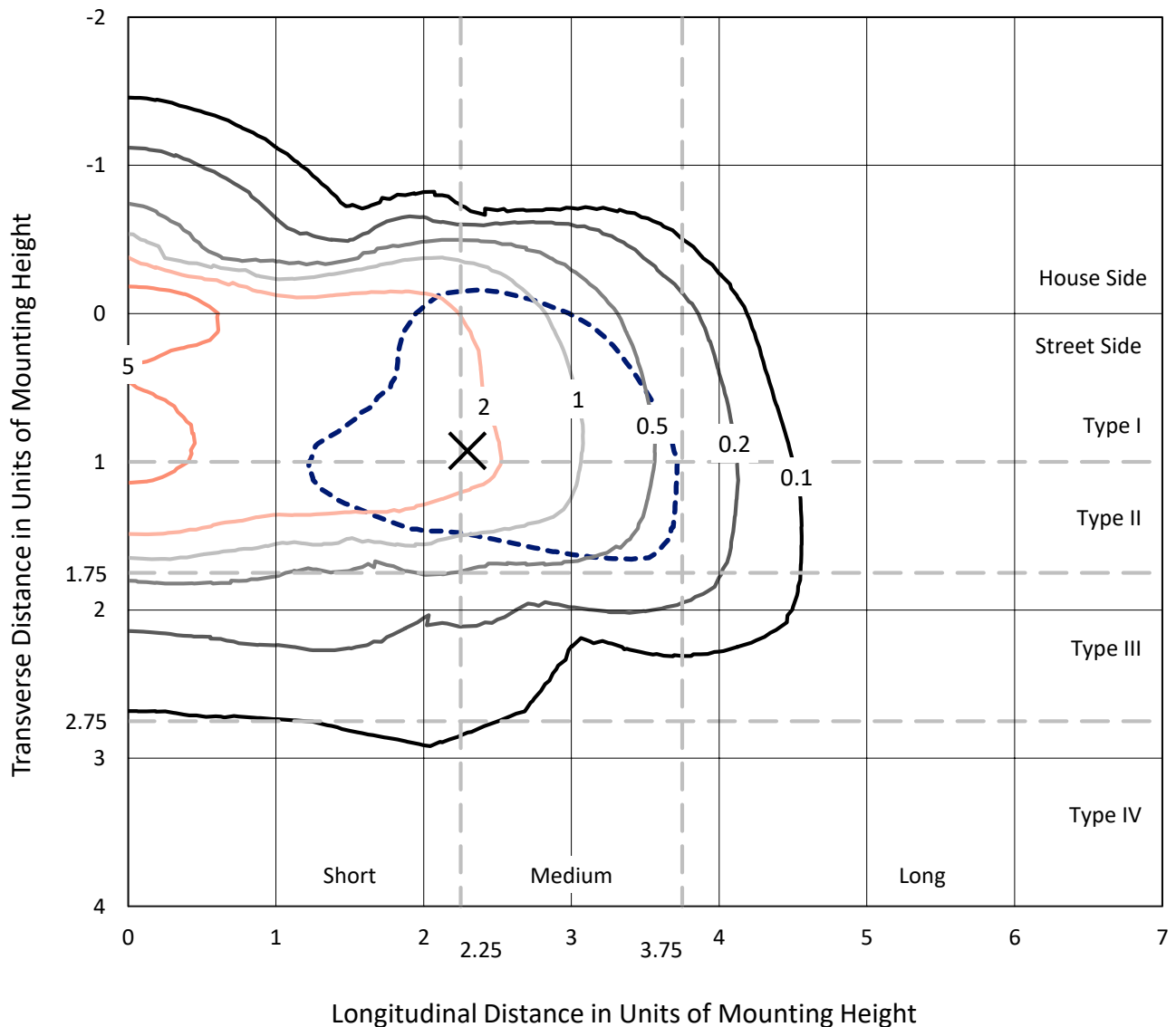


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

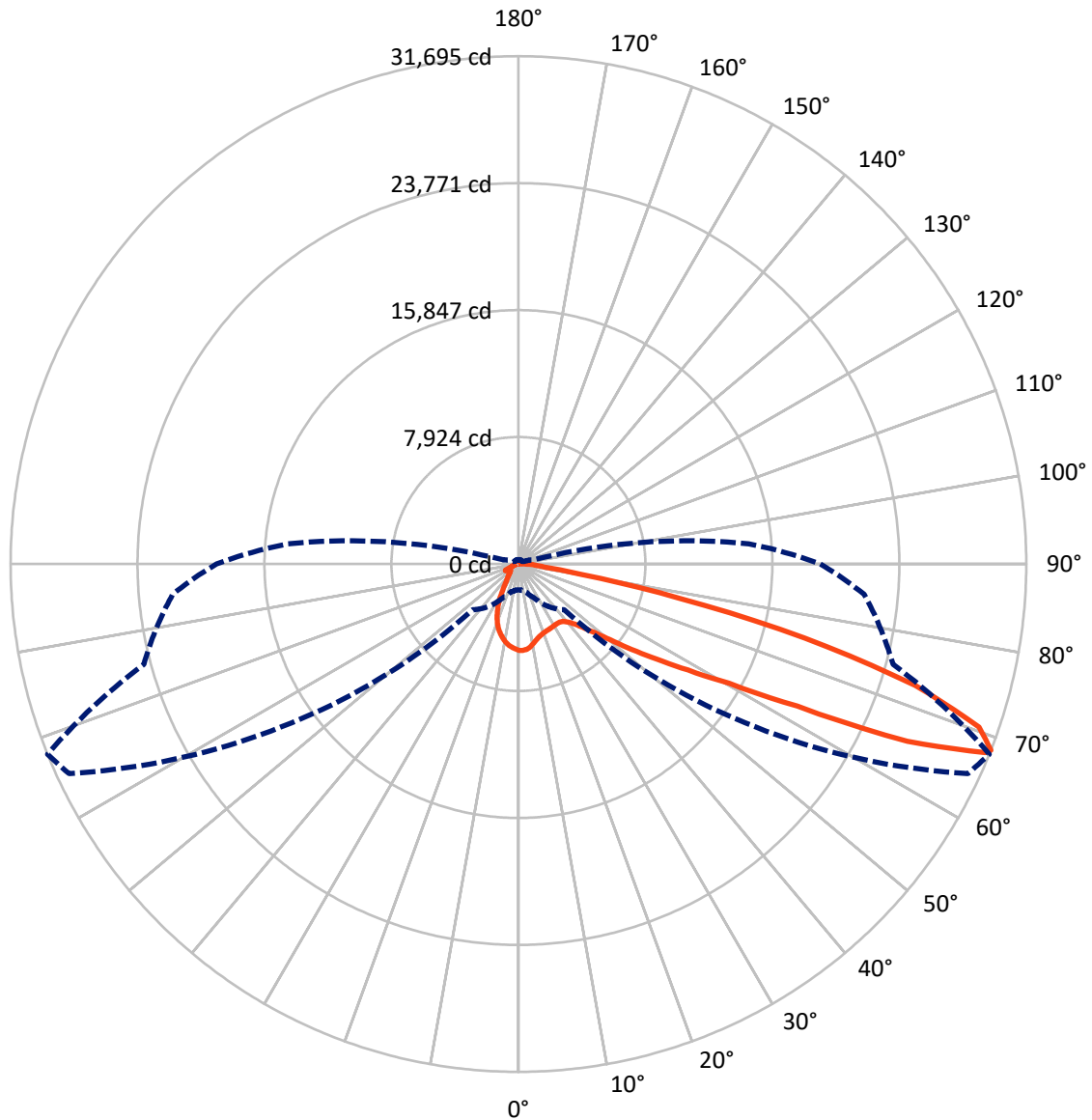


Based on 25 foot mounting height. Maximum calculated value = 8.6 fc  
 Type II - Medium - Semi-Cutoff

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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	4055.6	0.0	4055.6
	% Fixture	16.4	0.0	16.4
<b>Street Side</b>	Lumens	20733.7	0.0	20733.7
	% Fixture	83.6	0.0	83.6
<b>Total</b>	Lumens	24789.3	0.0	24789.3
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	462.2	1.9
10°-20°	1071.9	4.3
20°-30°	1449.7	5.8
30°-40°	2044.1	8.2
40°-50°	3361.3	13.6
50°-60°	5210.2	21.0
60°-70°	6755.5	27.3
70°-80°	3876.6	15.6
80°-90°	557.8	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°	24789.3	100.0
0°-180°	24789.3	100.0

**Coefficient of Utilization**



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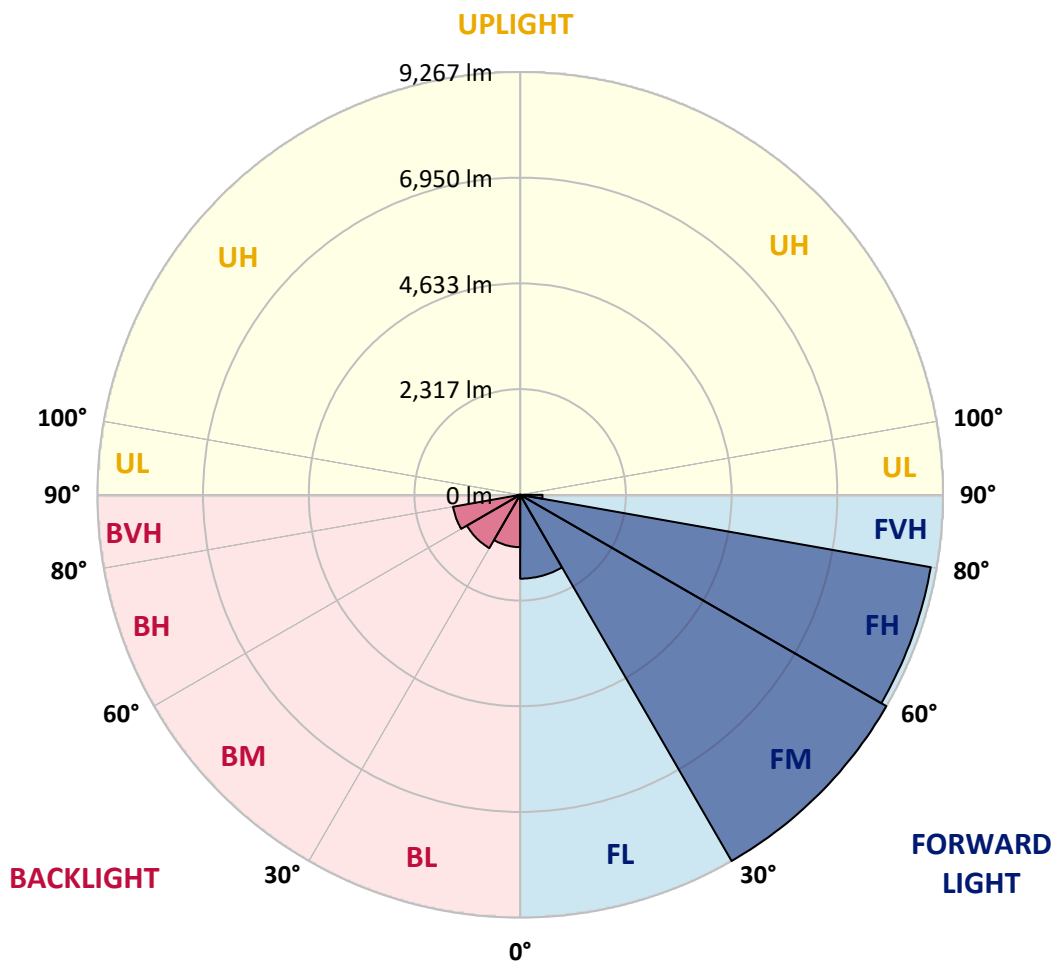
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1837.3	7.4			
FM (30°-60°)	9266.7	37.4			
FH (60°-80°)	9138.5	36.9			G4/12000
FVH (80°-90°)	491.3	2.0			G3/500
BL (0°-30°)	1146.6	4.6	B3/2500		
BM (30°-60°)	1349.0	5.4	B2/2500		
BH (60°-80°)	1493.6	6.0	B3/2500		G3/2500
BVH (80°-90°)	66.5	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°	5394.0	5394.0	5394.0	5394.0	5394.0	5394.0	5394.0	5394.0	5394.0	5394.0	5394.0
2.5°	5249.9	5291.9	5291.9	5322.6	5350.2	5372.9	5392.3	5392.3	5392.3	5379.3	5368.0
5°	4697.6	4754.3	4762.5	4840.1	4942.1	5066.8	5206.0	5329.1	5353.4	5398.8	5416.6
7.5°	4313.8	4331.6	4362.3	4415.9	4519.6	4673.3	4891.9	5167.2	5233.6	5376.0	5450.6
10°	4041.8	4056.3	4082.3	4135.7	4229.6	4368.8	4584.3	4942.1	5052.2	5304.9	5452.3
12.5°	3842.6	3854.0	3878.3	3926.9	4022.4	4147.0	4367.3	4739.7	4875.7	5233.6	5474.9
15°	3687.2	3706.5	3726.0	3773.1	3870.2	3990.0	4213.4	4592.3	4739.7	5176.9	5517.0
17.5°	3625.6	3635.4	3638.6	3662.8	3750.3	3871.8	4095.3	4488.7	4641.0	5131.6	5549.4
20°	3664.5	3666.2	3633.7	3617.6	3667.7	3779.4	3996.5	4410.9	4566.4	5091.1	5562.3
22.5°	3834.5	3834.5	3750.3	3679.1	3645.1	3714.8	3930.1	4357.6	4526.0	5060.3	5562.3
25°	4158.4	4143.8	4012.6	3871.8	3721.1	3692.0	3888.0	4323.5	4495.2	5044.2	5541.3
27.5°	4584.3	4571.4	4404.5	4195.7	3923.5	3740.6	3873.4	4296.1	4464.4	5019.9	5495.9
30°	5102.5	5091.1	4901.6	4628.0	4226.3	3894.4	3907.4	4276.7	4440.1	4979.3	5419.8
32.5°	5619.0	5612.5	5462.0	5181.9	4644.1	4155.2	3996.5	4273.3	4427.1	4930.7	5327.6
35°	6138.7	6138.7	6046.5	5810.1	5206.0	4547.0	4182.7	4333.2	4451.6	4904.8	5248.2
37.5°	6906.3	6875.5	6704.0	6459.4	5913.7	5055.5	4483.9	4459.5	4545.5	4948.7	5222.2
40°	8094.9	8005.9	7576.8	7165.4	6686.2	5706.5	4924.2	4704.2	4755.9	5097.6	5283.8
42.5°	9338.6	9197.7	8629.3	7971.9	7484.5	6509.7	5502.4	5100.8	5099.1	5385.8	5479.8
45°	10405.6	10332.8	9717.4	8883.6	8396.1	7413.3	6232.7	5690.3	5632.0	5832.8	5857.0
47.5°	11025.8	10977.3	10606.5	9848.7	9477.8	8480.3	7159.0	6508.0	6397.9	6517.7	6480.6
50°	10854.2	10901.2	10794.4	10407.4	10640.6	9979.8	8339.4	7628.5	7419.7	7539.6	7448.8
52.5°	9950.6	10076.9	10172.4	10247.0	11309.3	11986.2	9822.7	9027.6	8854.5	8833.4	8745.9
55°	8323.2	8524.0	8825.3	9372.6	11129.6	13597.4	12413.7	10719.8	10467.2	10334.5	10368.4
57.5°	5664.4	5968.8	6618.2	7659.4	10195.1	14283.9	16244.9	12905.9	12478.4	12005.6	12115.7
60°	3120.4	3374.7	4147.0	5196.3	8062.6	14181.9	19640.6	16458.7	15113.1	13859.7	14086.4
62.5°	2019.3	2074.4	2649.2	3549.6	4948.7	12520.5	21527.2	22396.7	19545.1	16304.9	16623.9
65°	1622.6	1661.4	1943.2	2863.0	3447.5	8054.5	21611.3	28556.6	26676.5	19627.6	19637.4
67.5°	1585.2	1603.1	1766.6	2407.8	3233.8	4385.0	18680.3	30985.5	31421.2	23549.6	21653.5
68°	1608.0	1629.0	1794.2	2333.4	3232.1	4041.8	17265.2	30948.2	31694.8	24205.5	21653.5
70°	1418.6	1444.5	1829.8	2414.4	3094.5	3475.1	11822.7	29304.7	30506.3	25713.1	20545.9
72.5°	741.6	720.6	905.2	1905.9	3483.2	3620.8	6245.6	24482.3	25884.8	23813.6	17750.9
75°	578.1	526.2	506.9	753.0	3063.7	3755.2	3627.3	17401.1	18460.2	17166.3	11864.8
77.5°	544.2	481.0	443.8	445.3	1348.8	3907.4	2934.3	10240.5	10240.5	8188.9	3785.9
80°	437.2	378.9	354.7	404.9	650.9	3601.3	3062.1	4666.9	3980.3	2116.4	1042.8
82.5°	288.3	257.5	259.2	328.7	493.9	2404.7	3546.2	2304.3	1731.0	937.7	613.7
85°	183.0	157.1	174.9	230.0	369.3	1071.9	3510.7	1601.5	1146.4	526.2	306.1
87.5°	92.3	71.2	87.5	119.8	225.0	307.7	2890.4	1429.8	850.2	218.6	166.7
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°	5394.0	5394.0	5394.0	5394.0	5394.0	5394.0	5394.0	5394.0	5394.0	5394.0	5394.0
2.5°	5368.0	5332.3	5314.6	5285.4	5249.9	5214.2	5189.9	5178.5	5172.1	5175.3	5173.7
5°	5406.9	5359.9	5283.8	5175.3	5063.6	4945.3	4854.7	4785.0	4741.3	4728.4	4725.2
7.5°	5436.1	5368.0	5225.5	5028.0	4836.8	4629.7	4453.1	4312.3	4216.6	4172.9	4171.4
10°	5431.2	5343.7	5118.6	4827.1	4547.0	4242.5	3965.7	3729.3	3557.6	3475.1	3471.8
12.5°	5436.1	5316.2	4987.5	4592.3	4190.8	3755.2	3343.9	2976.4	2720.4	2598.9	2594.1
15°	5455.4	5287.1	4853.1	4330.0	3774.6	3159.2	2571.5	2109.9	1876.7	1797.4	1797.4
17.5°	5453.8	5238.5	4697.6	4025.7	3280.7	2456.4	1755.4	1470.3	1447.7	1520.6	1531.9
20°	5421.5	5160.8	4496.8	3664.5	2701.1	1700.3	1190.3	1149.7	1331.1	1531.9	1554.5
22.5°	5371.2	5060.3	4265.2	3245.0	2025.8	1107.6	918.2	979.7	1225.7	1475.1	1510.8
25°	5301.6	4938.9	3999.8	2757.6	1347.3	796.6	766.0	842.0	1015.4	1182.1	1208.0
27.5°	5199.6	4785.0	3709.8	2229.9	859.9	655.9	667.1	720.6	795.1	866.3	880.9
30°	5071.7	4605.3	3394.1	1645.2	652.6	586.2	605.5	637.9	670.3	715.7	725.4
32.5°	4942.1	4422.4	3065.3	1130.2	570.1	549.0	568.4	586.2	613.7	644.4	650.9
35°	4825.5	4252.2	2727.0	788.6	534.4	524.7	534.4	545.7	573.3	604.0	607.3
37.5°	4741.3	4113.1	2374.0	623.5	513.3	503.6	508.5	513.3	545.7	591.1	595.9
40°	4730.0	4020.8	2016.1	560.4	497.1	484.1	481.0	484.1	526.2	578.1	583.0
42.5°	4840.1	4025.7	1666.3	534.4	484.1	469.6	456.7	463.2	500.4	540.9	544.2
45°	5100.8	4139.0	1363.4	523.1	472.9	461.5	442.1	445.3	463.2	484.1	487.4
47.5°	5560.7	4386.8	1132.0	516.5	463.2	453.5	429.1	419.4	421.0	432.4	432.4
50°	6296.0	4801.3	991.0	510.1	455.0	437.2	409.6	390.3	385.5	391.9	393.5
52.5°	7392.2	5512.1	923.0	497.1	440.4	416.2	385.5	366.0	357.9	364.4	364.4
55°	8873.8	6647.3	890.6	479.3	422.7	390.3	362.7	346.6	340.1	344.9	344.9
57.5°	10562.8	8122.5	945.6	455.0	399.9	362.7	343.3	332.0	327.2	332.0	333.6
60°	12569.1	10052.8	1324.6	424.3	375.8	338.4	327.2	320.6	317.5	322.2	322.2
62.5°	15236.2	12620.8	2050.0	399.9	349.8	315.8	312.5	309.2	306.1	311.0	311.0
65°	18115.2	14957.6	2109.9	385.5	327.2	296.4	298.0	298.0	294.7	299.6	299.6
67.5°	19031.9	14755.2	1178.8	367.5	299.6	276.9	283.3	283.3	281.8	286.6	285.0
68°	18837.5	14434.5	1026.7	362.7	294.7	272.0	278.6	280.1	278.6	283.3	281.8
70°	17389.7	12672.7	675.3	335.2	273.7	255.8	265.5	267.2	265.5	272.0	270.4
72.5°	14355.2	9505.3	498.7	293.0	247.8	234.7	244.5	246.1	247.8	254.2	252.7
75°	9116.7	5249.9	393.5	249.4	221.8	210.6	220.3	225.0	228.3	238.1	233.2
77.5°	2497.0	1593.5	319.0	212.1	191.1	186.2	192.6	199.2	202.4	213.7	205.6
80°	874.4	704.5	265.5	179.8	158.7	157.1	163.5	170.0	173.3	183.0	173.3
82.5°	531.2	459.9	212.1	140.9	124.7	123.1	131.2	137.6	140.9	140.9	134.3
85°	276.9	242.9	155.4	98.8	85.8	80.9	95.5	103.7	105.2	103.7	98.8
87.5°	155.4	137.6	82.6	46.9	38.8	40.5	50.1	61.5	66.4	64.8	61.5
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)