

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: P196668

Luminaire Tested: **NAV-AF-06-D-UNV-SL4-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196668  
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-SL4-7030-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 3000K, 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: 26853.7 lumens  
Efficiency: N/A  
Efficacy: 107.8 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 - G5

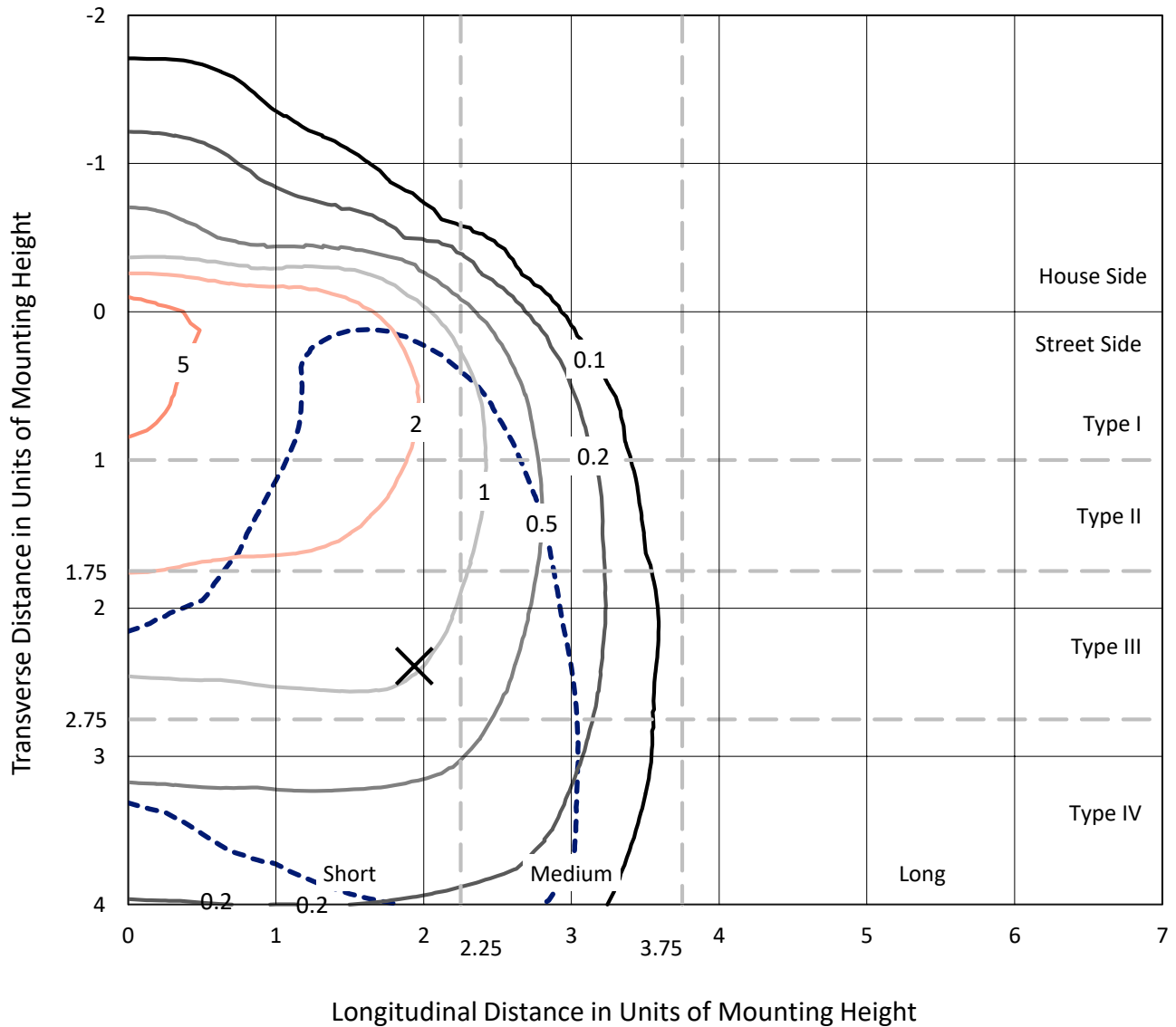
Input Watts (W): 249  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

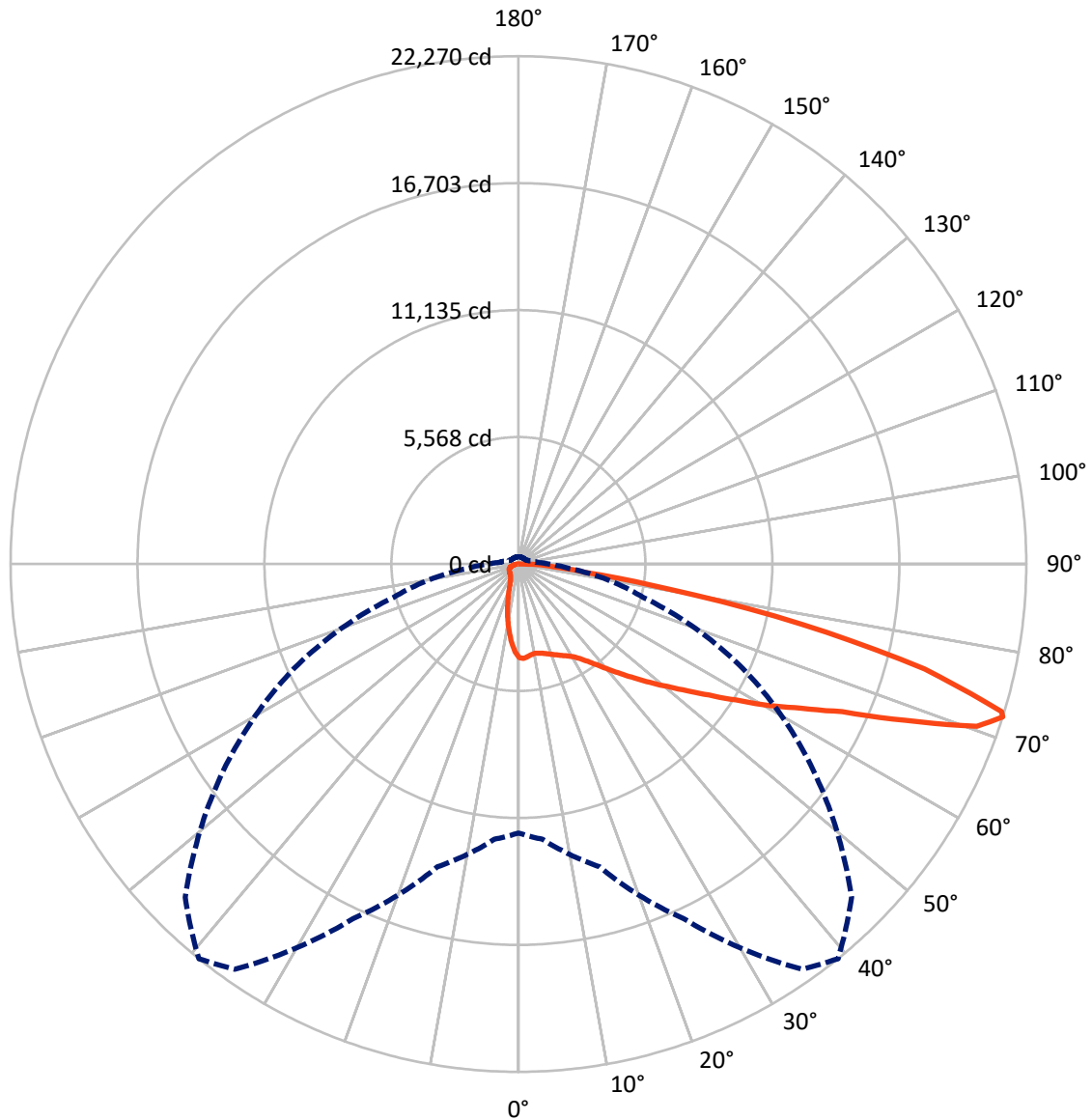
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 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	3079.1	0.0	3079.1
	% Fixture	11.5	0.0	11.5
<b>Street Side</b>	Lumens	23774.6	0.0	23774.6
	% Fixture	88.5	0.0	88.5
<b>Total</b>	Lumens	26853.7	0.0	26853.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	352.4	1.3
10°-20°	885.6	3.3
20°-30°	1380.1	5.1
30°-40°	2124.9	7.9
40°-50°	3464.0	12.9
50°-60°	5382.7	20.0
60°-70°	7204.6	26.8
70°-80°	5181.1	19.3
80°-90°	878.3	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°	26853.7	100.0
0°-180°	26853.7	100.0

**Coefficient of Utilization**



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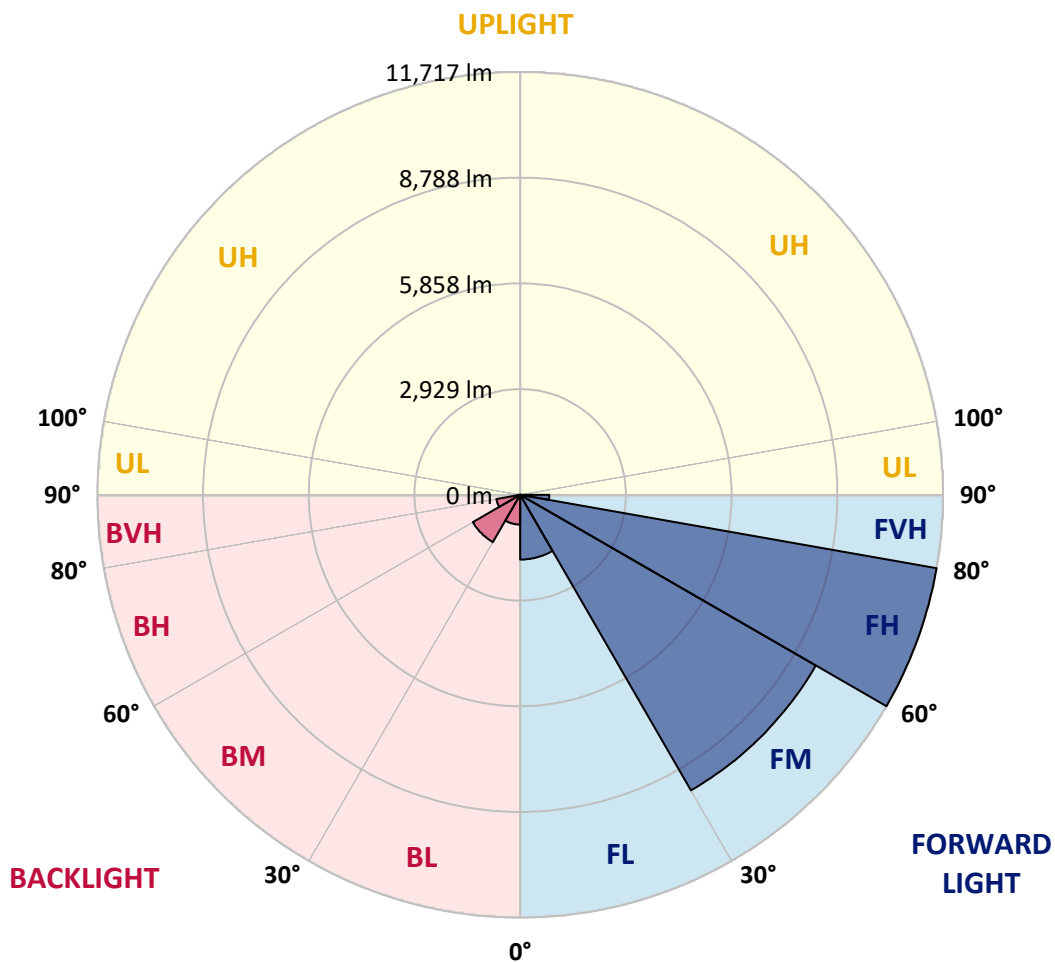
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1793.8	6.7			
FM	(30°-60°)	9458.4	35.2			
FH	(60°-80°)	11716.7	43.6			G4/12000
FVH	(80°-90°)	805.7	3.0			G5
BL	(0°-30°)	824.3	3.1	B2/1000		
BM	(30°-60°)	1513.3	5.6	B2/2500		
BH	(60°-80°)	669.0	2.5	B2/1000		G2/1000
BVH	(80°-90°)	72.6	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-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	4101.0	4101.0	4101.0	4101.0	4101.0	4101.0	4101.0	4101.0	4101.0	4101.0	4101.0
2.5°	4189.3	4191.1	4185.7	4169.6	4155.1	4147.9	4135.3	4113.7	4084.8	4065.0	4048.8
5°	4149.6	4155.1	4151.6	4124.5	4099.3	4084.8	4065.0	4034.4	3996.4	3980.4	3942.4
7.5°	4119.1	4122.7	4111.9	4081.3	4032.5	4014.5	3978.4	3938.8	3904.6	3881.1	3836.1
10°	4097.4	4101.0	4092.1	4061.3	4007.3	3985.7	3942.4	3899.1	3854.1	3825.2	3774.8
12.5°	4066.8	4074.1	4074.1	4059.6	4023.6	4009.2	3965.9	3919.0	3877.5	3846.9	3783.7
15°	4061.3	4070.5	4086.7	4084.8	4074.1	4063.3	4028.9	3982.1	3946.0	3910.0	3832.5
17.5°	4106.5	4126.2	4158.7	4169.6	4162.3	4138.8	4099.3	4056.0	4016.4	3982.1	3886.6
20°	4220.0	4230.8	4279.4	4301.1	4265.1	4230.8	4178.5	4122.7	4086.7	4059.6	3937.0
22.5°	4391.2	4405.7	4445.3	4447.2	4371.5	4330.0	4263.3	4194.8	4160.5	4149.6	4005.6
25°	4665.3	4661.6	4672.5	4627.4	4490.4	4441.7	4360.6	4281.4	4257.9	4279.4	4106.5
27.5°	4993.3	4984.3	4950.1	4833.0	4625.6	4562.5	4465.2	4394.9	4394.9	4445.3	4243.4
30°	5371.9	5362.9	5251.1	5054.7	4786.1	4714.0	4611.2	4537.3	4575.1	4672.5	4429.2
32.5°	5772.1	5739.7	5582.8	5319.7	5015.0	4935.7	4836.6	4760.9	4833.0	4998.7	4696.0
35°	6148.9	6130.9	5937.9	5626.1	5310.6	5243.9	5175.4	5081.6	5197.0	5454.9	5072.7
37.5°	6538.3	6523.9	6287.7	5955.9	5671.2	5626.1	5568.4	5503.5	5689.2	6028.1	5582.8
40°	6972.7	6943.9	6646.4	6314.7	6091.2	6069.6	6038.9	6020.8	6320.1	6824.9	6228.3
42.5°	7464.8	7409.0	7025.0	6709.5	6549.1	6567.1	6550.8	6623.0	7080.9	7744.2	6996.1
45°	8027.3	7915.5	7401.8	7129.5	7055.6	7127.7	7162.0	7345.8	7980.4	8806.0	7854.2
47.5°	8553.6	8409.3	7814.6	7585.6	7627.1	7751.4	7848.7	8173.2	8966.5	9855.1	8730.3
50°	9038.6	8876.3	8256.1	8057.9	8259.8	8436.5	8638.4	9096.2	10015.6	10934.8	9534.3
52.5°	9397.3	9280.1	8697.8	8573.5	8986.2	9220.6	9543.2	10121.9	11075.5	11964.2	10251.7
55°	9674.9	9611.7	9128.6	9164.6	9808.3	10143.5	10534.8	11199.9	12196.8	12887.2	10828.5
57.5°	9995.7	9948.8	9620.9	9878.5	10828.5	11250.4	11711.8	12450.9	13264.0	13700.2	11281.0
60°	10334.7	10334.7	10168.8	10738.4	12104.9	12588.0	13047.6	13622.7	14327.5	14432.0	11464.9
62.5°	10590.6	10657.3	10716.8	11654.1	13316.2	13916.6	14421.2	14972.9	15428.9	14792.6	11032.2
65°	10962.0	11104.3	11439.7	12712.4	14816.1	15602.0	16283.5	16746.7	16321.2	14506.1	9620.9
67.5°	11600.0	11811.0	12524.8	14287.9	17112.6	18289.8	18951.3	18151.0	16146.5	12701.5	7369.3
70°	12175.2	12472.6	13693.0	16287.1	20097.8	21320.1	21015.4	17824.7	14062.5	9310.7	4533.7
72°	11793.0	12117.5	13747.1	17157.7	21693.2	22270.1	20663.8	15796.7	10866.4	5682.0	2235.3
72.5°	11542.4	11879.5	13572.1	17136.1	21736.5	22149.2	20175.4	14990.9	9864.2	4971.8	1808.0
75°	9642.4	9930.8	11670.4	15187.4	19155.0	18397.9	15744.4	9701.9	4533.7	1606.2	930.2
77.5°	6296.7	6516.7	8047.1	10522.1	13417.1	12689.0	9582.9	4542.7	1699.8	975.2	699.5
80°	3163.7	3320.5	4306.6	5532.4	7241.2	6662.6	4423.7	2197.4	1137.5	704.8	549.8
82.5°	2201.0	2345.2	2965.4	2824.8	3026.7	2929.3	2080.3	1833.3	850.8	445.2	288.5
85°	1845.9	1995.5	2453.4	2013.5	1647.6	1501.7	1490.9	1732.3	562.4	219.9	243.3
87.5°	1609.8	1836.8	2024.3	1470.9	1130.3	996.9	1097.8	1588.2	178.4	120.7	73.9
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°	4101.0	4101.0	4101.0	4101.0	4101.0	4101.0	4101.0	4101.0	4101.0	4101.0	4101.0
2.5°	4021.8	4016.4	3989.3	3947.9	3917.2	3897.4	3859.5	3857.7	3861.3	3828.9	3841.4
5°	3908.2	3886.6	3816.2	3720.8	3643.1	3569.3	3488.1	3461.2	3437.7	3389.0	3394.3
7.5°	3789.2	3751.3	3628.7	3471.9	3322.2	3185.4	3050.1	2983.5	2932.9	2869.8	2869.8
10°	3718.8	3659.4	3471.9	3243.1	3005.0	2804.9	2603.0	2482.3	2394.0	2312.8	2307.4
12.5°	3715.3	3625.1	3363.8	3048.4	2721.9	2440.9	2165.0	1979.3	1847.7	1752.2	1743.1
15°	3744.1	3617.9	3273.6	2866.2	2455.3	2089.2	1748.5	1512.4	1344.8	1238.5	1227.6
17.5°	3769.3	3609.0	3176.2	2675.1	2195.7	1750.4	1371.9	1126.7	968.0	881.5	872.4
20°	3792.8	3589.0	3051.9	2473.3	1909.0	1433.2	1072.6	874.3	769.7	721.1	715.6
22.5°	3827.1	3571.0	2922.1	2246.2	1627.9	1166.4	885.1	742.8	686.8	663.4	659.8
25°	3883.0	3572.9	2796.0	2013.5	1370.0	971.7	766.1	677.9	647.2	631.0	631.0
27.5°	3964.0	3594.5	2671.5	1777.4	1151.9	838.2	695.9	643.5	623.8	611.1	607.5
30°	4083.0	3634.2	2540.0	1553.8	978.9	746.4	654.4	621.9	605.8	594.9	593.1
32.5°	4256.0	3704.4	2401.2	1350.2	847.2	681.4	623.8	603.8	591.3	582.3	580.5
35°	4513.8	3828.9	2265.9	1177.2	753.6	634.6	598.5	582.3	575.0	571.4	569.7
37.5°	4892.4	4028.9	2137.9	1041.9	692.2	603.8	573.3	564.3	560.6	560.6	560.6
40°	5368.4	4292.1	2022.6	946.4	658.0	580.5	555.2	548.1	548.1	549.8	549.8
42.5°	5947.0	4622.0	1923.4	881.5	638.2	564.3	542.6	538.9	537.2	537.2	538.9
45°	6619.4	5011.4	1862.1	831.0	623.8	555.2	533.6	531.8	524.6	520.9	520.9
47.5°	7295.4	5427.8	1858.5	802.2	605.8	544.4	524.6	524.6	510.1	502.9	504.8
50°	7926.3	5800.9	1898.2	795.0	594.9	528.2	515.6	517.4	497.5	488.5	486.7
52.5°	8434.6	6085.7	1946.9	804.0	594.9	513.7	499.4	508.4	486.7	476.0	474.0
55°	8827.6	6284.0	1964.9	823.9	602.1	501.2	484.9	499.4	483.2	468.7	468.7
57.5°	9108.8	6347.2	1887.4	832.8	613.0	499.4	470.5	497.5	488.5	470.5	470.5
60°	9006.1	5981.2	1599.0	798.5	611.1	495.7	459.7	501.2	506.5	486.7	486.7
62.5°	8203.9	5004.2	1283.5	721.1	580.5	483.2	447.1	497.5	519.2	512.0	508.4
65°	6678.8	3670.2	995.1	629.2	528.2	456.0	420.0	465.1	490.3	497.5	499.4
67.5°	4706.8	2323.6	773.3	535.4	463.3	416.4	389.4	411.1	420.0	423.6	430.8
70°	2574.1	1258.2	614.7	450.7	396.6	376.7	356.9	358.7	355.1	351.5	355.1
72°	1292.5	822.0	519.2	391.1	351.5	338.9	329.9	324.5	324.5	319.0	320.9
72.5°	1112.3	764.4	501.2	376.7	340.7	329.9	322.7	317.3	315.4	311.8	313.7
75°	740.9	605.8	418.3	315.4	290.2	283.0	286.6	281.3	283.0	279.3	281.3
77.5°	598.5	520.9	355.1	266.8	248.8	237.9	245.2	246.9	250.5	246.9	245.2
80°	501.2	443.5	297.4	219.9	207.3	198.3	201.9	214.4	216.4	205.5	203.7
82.5°	324.5	356.9	234.4	171.2	158.7	155.0	164.0	176.7	180.3	165.8	162.2
85°	272.2	286.6	169.5	117.1	104.6	100.9	119.0	131.5	140.6	126.2	122.6
87.5°	75.7	140.6	82.9	55.8	46.9	46.9	57.7	68.5	81.1	82.9	82.9
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)