

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: P195125

Luminaire Tested: **NAV-AF-05-D-UNV-SL2-7060-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195125  
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-05-D-UNV-SL2-7060-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 5700K, 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: 19423 lumens  
Efficiency: N/A  
Efficacy: 119.9 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 - G3

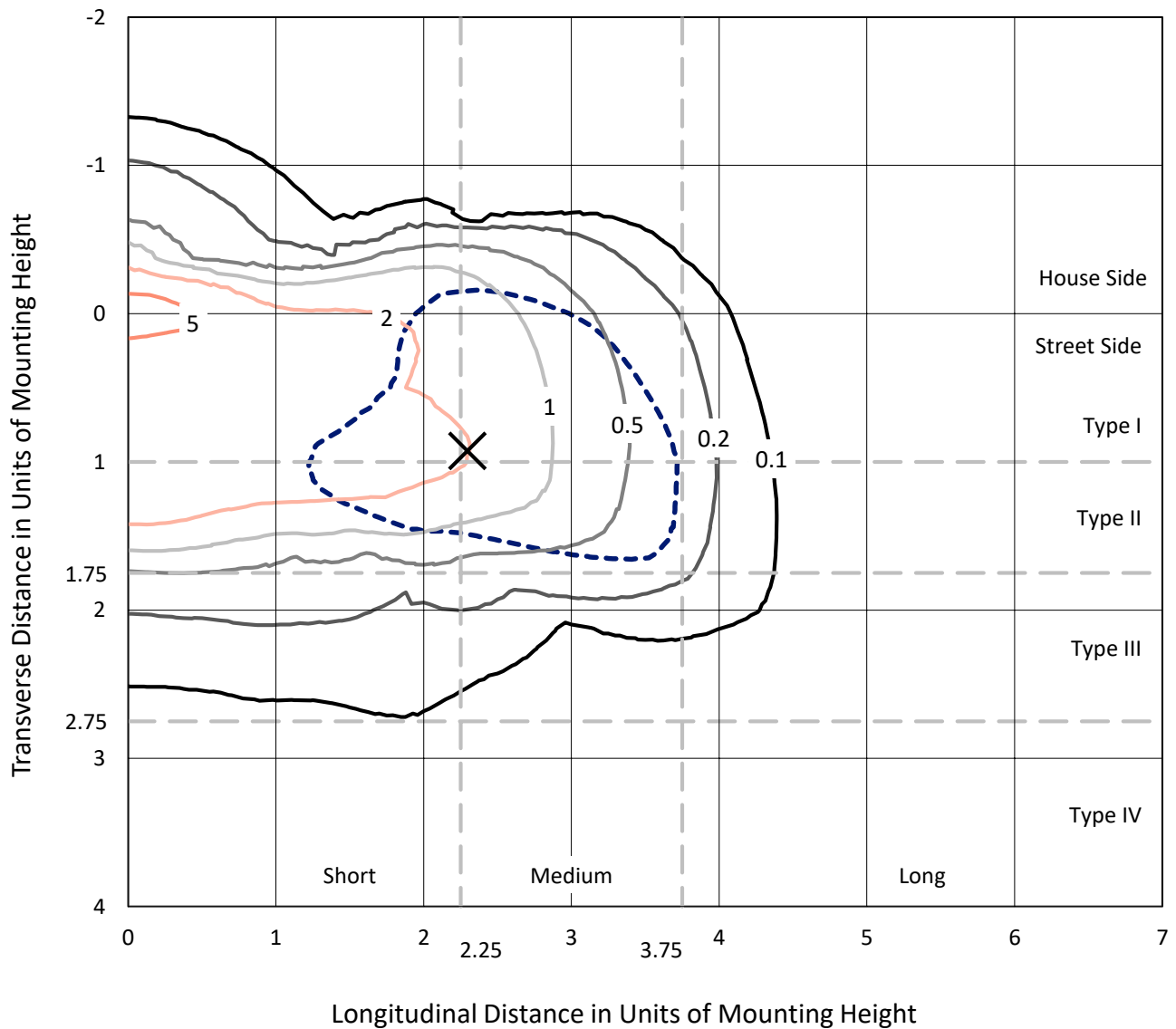
Input Watts (W): 162  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

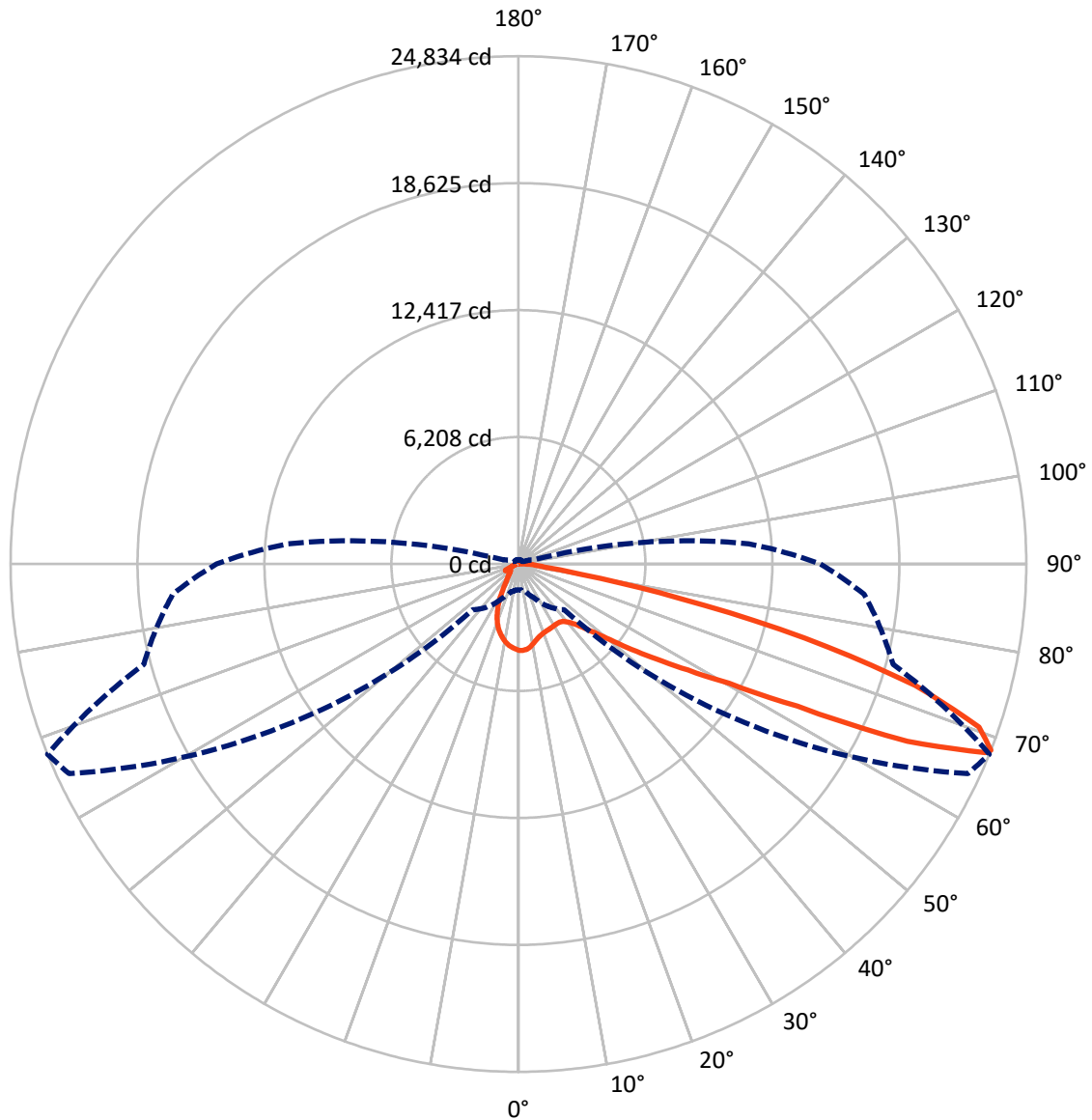
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 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	3177.7	0.0	3177.7
	% Fixture	16.4	0.0	16.4
<b>Street Side</b>	Lumens	16245.3	0.0	16245.3
	% Fixture	83.6	0.0	83.6
<b>Total</b>	Lumens	19423.0	0.0	19423.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	362.1	1.9
10°-20°	839.9	4.3
20°-30°	1135.9	5.8
30°-40°	1601.6	8.2
40°-50°	2633.6	13.6
50°-60°	4082.4	21.0
60°-70°	5293.1	27.3
70°-80°	3037.4	15.6
80°-90°	437.0	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°	19423.0	100.0
0°-180°	19423.0	100.0

**Coefficient of Utilization**



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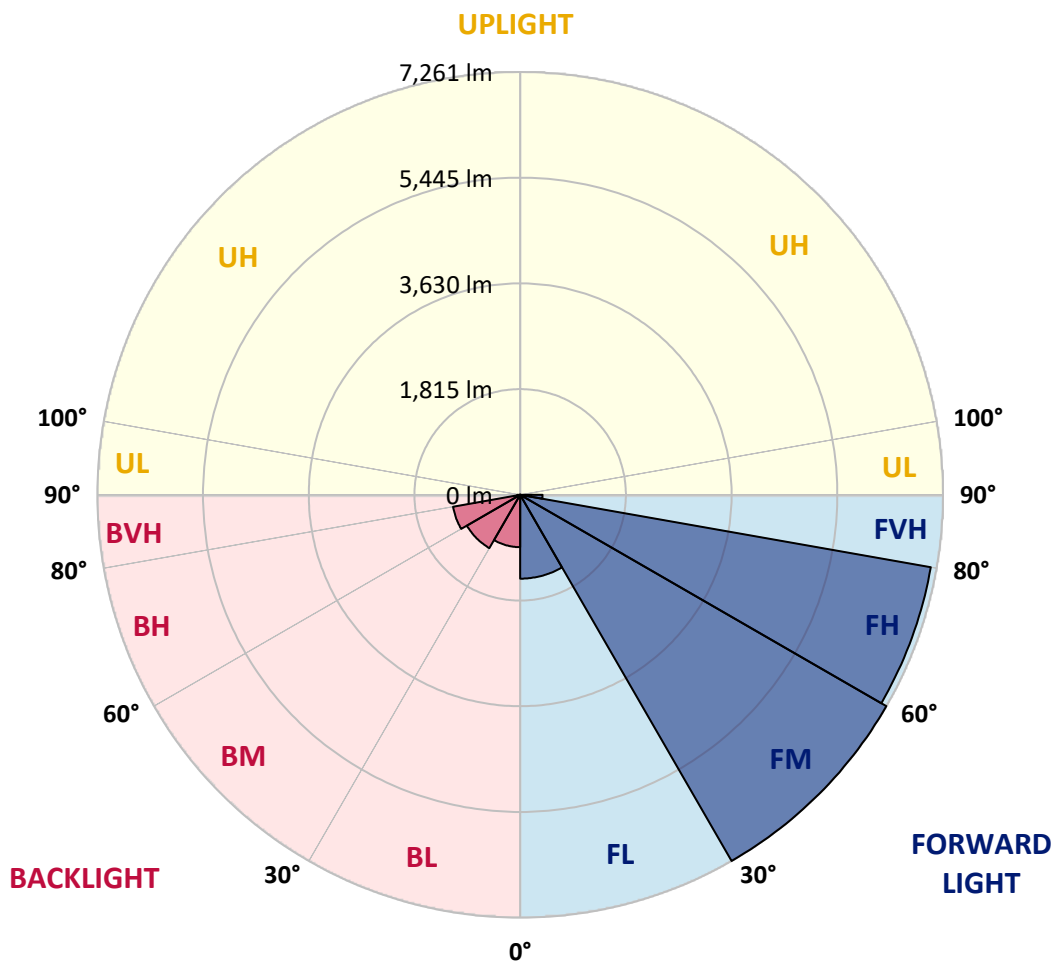
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1439.6	7.4			
FM (30°-60°)	7260.6	37.4			
FH (60°-80°)	7160.2	36.9			G3/7500
FVH (80°-90°)	384.9	2.0			G3/500
BL (0°-30°)	898.4	4.6	B2/1000		
BM (30°-60°)	1056.9	5.4	B2/2500		
BH (60°-80°)	1170.3	6.0	B3/2500		G3/2500
BVH (80°-90°)	52.1	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-G3**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	4226.3	4226.3	4226.3	4226.3	4226.3	4226.3	4226.3	4226.3	4226.3	4226.3	4226.3
2.5°	4113.4	4146.3	4146.3	4170.4	4192.0	4209.8	4225.0	4225.0	4225.0	4214.9	4206.0
5°	3680.7	3725.1	3731.5	3792.4	3872.3	3970.0	4079.1	4175.5	4194.6	4230.1	4244.0
7.5°	3380.0	3394.0	3418.1	3459.9	3541.1	3661.7	3833.0	4048.6	4100.7	4212.3	4270.7
10°	3166.8	3178.3	3198.6	3240.4	3314.0	3423.1	3591.9	3872.3	3958.6	4156.5	4271.9
12.5°	3010.8	3019.7	3038.7	3076.8	3151.6	3249.3	3421.9	3713.7	3820.3	4100.7	4289.7
15°	2889.0	2904.2	2919.4	2956.2	3032.4	3126.2	3301.3	3598.2	3713.7	4056.3	4322.7
17.5°	2840.8	2848.4	2850.9	2870.0	2938.5	3033.6	3208.7	3517.0	3636.3	4020.7	4348.1
20°	2871.2	2872.5	2847.1	2834.4	2873.8	2961.3	3131.3	3456.1	3577.9	3989.0	4358.2
22.5°	3004.4	3004.4	2938.5	2882.6	2856.0	2910.6	3079.3	3414.3	3546.2	3964.9	4358.2
25°	3258.2	3246.8	3144.0	3033.6	2915.6	2892.8	3046.3	3387.6	3522.1	3952.2	4341.7
27.5°	3591.9	3581.7	3451.1	3287.4	3074.2	2930.9	3034.9	3366.0	3498.0	3933.2	4306.2
30°	3997.9	3989.0	3840.6	3626.1	3311.5	3051.4	3061.5	3350.8	3479.0	3901.5	4246.6
32.5°	4402.6	4397.6	4279.6	4060.1	3638.8	3255.7	3131.3	3348.3	3468.8	3863.4	4174.3
35°	4809.9	4809.9	4737.6	4552.3	4079.1	3562.7	3277.2	3395.2	3487.8	3843.1	4112.1
37.5°	5411.3	5387.2	5252.7	5061.1	4633.5	3961.1	3513.2	3494.2	3561.4	3877.4	4091.8
40°	6342.6	6272.8	5936.6	5614.3	5238.7	4471.1	3858.3	3685.8	3726.4	3994.1	4140.0
42.5°	7317.0	7206.6	6761.3	6246.2	5864.3	5100.5	4311.3	3996.6	3995.4	4219.9	4293.5
45°	8153.1	8096.0	7613.9	6960.5	6578.6	5808.4	4883.5	4458.5	4412.8	4570.1	4589.1
47.5°	8639.1	8601.0	8310.4	7716.7	7426.1	6644.5	5609.2	5099.2	5012.9	5106.8	5077.6
50°	8504.6	8541.4	8457.6	8154.4	8337.1	7819.4	6534.2	5977.2	5813.5	5907.4	5836.3
52.5°	7796.6	7895.6	7970.4	8028.8	8861.1	9391.4	7696.4	7073.4	6937.6	6921.1	6852.6
55°	6521.5	6678.8	6914.8	7343.6	8720.3	10653.9	9726.4	8399.3	8201.3	8097.3	8123.9
57.5°	4438.2	4676.7	5185.5	6001.3	7988.2	11191.8	12728.3	10112.1	9777.1	9406.7	9492.9
60°	2444.9	2644.1	3249.3	4071.5	6317.2	11111.9	15388.9	12895.8	11841.4	10859.4	11037.0
62.5°	1582.2	1625.3	2075.7	2781.1	3877.4	9810.1	16867.0	17548.4	15314.0	12775.2	13025.2
65°	1271.3	1301.8	1522.5	2243.2	2701.2	6310.9	16933.0	22374.8	20901.7	15378.8	15386.4
67.5°	1242.1	1256.1	1384.2	1886.7	2533.7	3435.8	14636.5	24277.9	24619.2	18451.7	16966.0
68°	1259.9	1276.4	1405.8	1828.3	2532.5	3166.8	13527.6	24248.7	24833.6	18965.6	16966.0
70°	1111.4	1131.7	1433.7	1891.7	2424.6	2722.8	9263.3	22960.9	23902.4	20146.8	16098.1
72.5°	581.1	564.6	709.2	1493.3	2729.1	2837.0	4893.6	19182.5	20281.3	18658.5	13908.3
75°	453.0	412.4	397.1	590.0	2400.5	2942.3	2842.0	13634.2	14464.0	13450.2	9296.3
77.5°	426.3	376.8	347.6	348.9	1056.9	3061.5	2299.0	8023.7	8023.7	6416.2	2966.4
80°	342.6	296.9	277.9	317.2	510.0	2821.7	2399.2	3656.6	3118.6	1658.3	817.1
82.5°	225.8	201.7	203.0	257.6	387.0	1884.1	2778.6	1805.5	1356.3	734.6	480.9
85°	143.4	123.1	137.0	180.2	289.3	839.9	2750.7	1254.8	898.3	412.4	239.8
87.5°	72.3	55.8	68.5	93.9	176.4	241.1	2264.8	1120.3	666.1	171.3	130.7
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°	4226.3	4226.3	4226.3	4226.3	4226.3	4226.3	4226.3	4226.3	4226.3	4226.3	4226.3
2.5°	4206.0	4178.1	4164.1	4141.3	4113.4	4085.4	4066.4	4057.5	4052.5	4055.0	4053.7
5°	4236.4	4199.6	4140.0	4055.0	3967.4	3874.8	3803.8	3749.2	3715.0	3704.8	3702.3
7.5°	4259.3	4206.0	4094.3	3939.5	3789.8	3627.4	3489.1	3378.7	3303.9	3269.6	3268.4
10°	4255.5	4186.9	4010.6	3782.2	3562.7	3324.2	3107.2	2922.0	2787.5	2722.8	2720.2
12.5°	4259.3	4165.4	3907.8	3598.2	3283.6	2942.3	2620.0	2332.0	2131.5	2036.4	2032.6
15°	4274.5	4142.5	3802.5	3392.7	2957.5	2475.4	2014.8	1653.2	1470.5	1408.3	1408.3
17.5°	4273.2	4104.5	3680.7	3154.2	2570.5	1924.7	1375.3	1152.0	1134.3	1191.4	1200.3
20°	4247.8	4043.6	3523.4	2871.2	2116.3	1332.2	932.5	900.8	1042.9	1200.3	1218.0
22.5°	4208.5	3964.9	3341.9	2542.6	1587.2	867.8	719.4	767.6	960.5	1155.8	1183.8
25°	4154.0	3869.7	3133.9	2160.7	1055.6	624.2	600.1	659.8	795.5	926.2	946.5
27.5°	4074.0	3749.2	2906.8	1747.1	673.7	513.9	522.7	564.6	623.0	678.8	690.2
30°	3973.8	3608.4	2659.3	1289.1	511.3	459.3	474.5	499.9	525.3	560.8	568.4
32.5°	3872.3	3465.0	2401.8	885.6	446.6	430.1	445.3	459.3	480.9	505.0	510.0
35°	3780.9	3331.8	2136.6	617.9	418.7	411.1	418.7	427.6	449.1	473.3	475.8
37.5°	3715.0	3222.7	1860.0	488.5	402.2	394.6	398.4	402.2	427.6	463.1	466.9
40°	3706.1	3150.4	1579.6	439.0	389.5	379.4	376.8	379.4	412.4	453.0	456.8
42.5°	3792.4	3154.2	1305.6	418.7	379.4	367.9	357.8	362.9	392.0	423.8	426.3
45°	3996.6	3243.0	1068.3	409.8	370.5	361.6	346.4	348.9	362.9	379.4	381.9
47.5°	4357.0	3437.1	886.9	404.7	362.9	355.3	336.2	328.6	329.9	338.8	338.8
50°	4933.0	3761.9	776.5	399.7	356.5	342.6	321.0	305.8	302.0	307.0	308.3
52.5°	5791.9	4318.9	723.2	389.5	345.1	326.1	302.0	286.7	280.4	285.5	285.5
55°	6952.9	5208.3	697.8	375.6	331.1	305.8	284.2	271.5	266.4	270.2	270.2
57.5°	8276.2	6364.1	741.0	356.5	313.4	284.2	269.0	260.1	256.3	260.1	261.4
60°	9848.2	7876.5	1037.9	332.4	294.4	265.2	256.3	251.2	248.7	252.5	252.5
62.5°	11937.9	9888.8	1606.3	313.4	274.1	247.4	244.9	242.3	239.8	243.6	243.6
65°	14193.7	11719.6	1653.2	302.0	256.3	232.2	233.5	233.5	230.9	234.7	234.7
67.5°	14911.8	11561.0	923.7	288.0	234.7	217.0	222.0	222.0	220.8	224.6	223.3
68°	14759.6	11309.8	804.4	284.2	230.9	213.2	218.2	219.5	218.2	222.0	220.8
70°	13625.3	9929.4	529.1	262.6	214.4	200.5	208.1	209.3	208.1	213.2	211.9
72.5°	11247.6	7447.7	390.8	229.6	194.1	184.0	191.6	192.9	194.1	199.2	197.9
75°	7143.2	4113.4	308.3	195.4	173.8	164.9	172.6	176.4	178.9	186.5	182.7
77.5°	1956.4	1248.5	249.9	166.2	149.7	145.9	151.0	156.1	158.6	167.5	161.1
80°	685.1	551.9	208.1	140.8	124.3	123.1	128.1	133.2	135.8	143.4	135.8
82.5°	416.2	360.3	166.2	110.4	97.7	96.4	102.8	107.8	110.4	110.4	105.3
85°	217.0	190.3	121.8	77.4	67.2	63.4	74.9	81.2	82.5	81.2	77.4
87.5°	121.8	107.8	64.7	36.8	30.5	31.7	39.3	48.2	52.0	50.8	48.2
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)