

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: P195126

Luminaire Tested: **NAV-AF-06-D-UNV-SL2-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195126
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-SL2-7060-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 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: 23268 lumens
Efficiency: N/A
Efficacy: 120.6 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

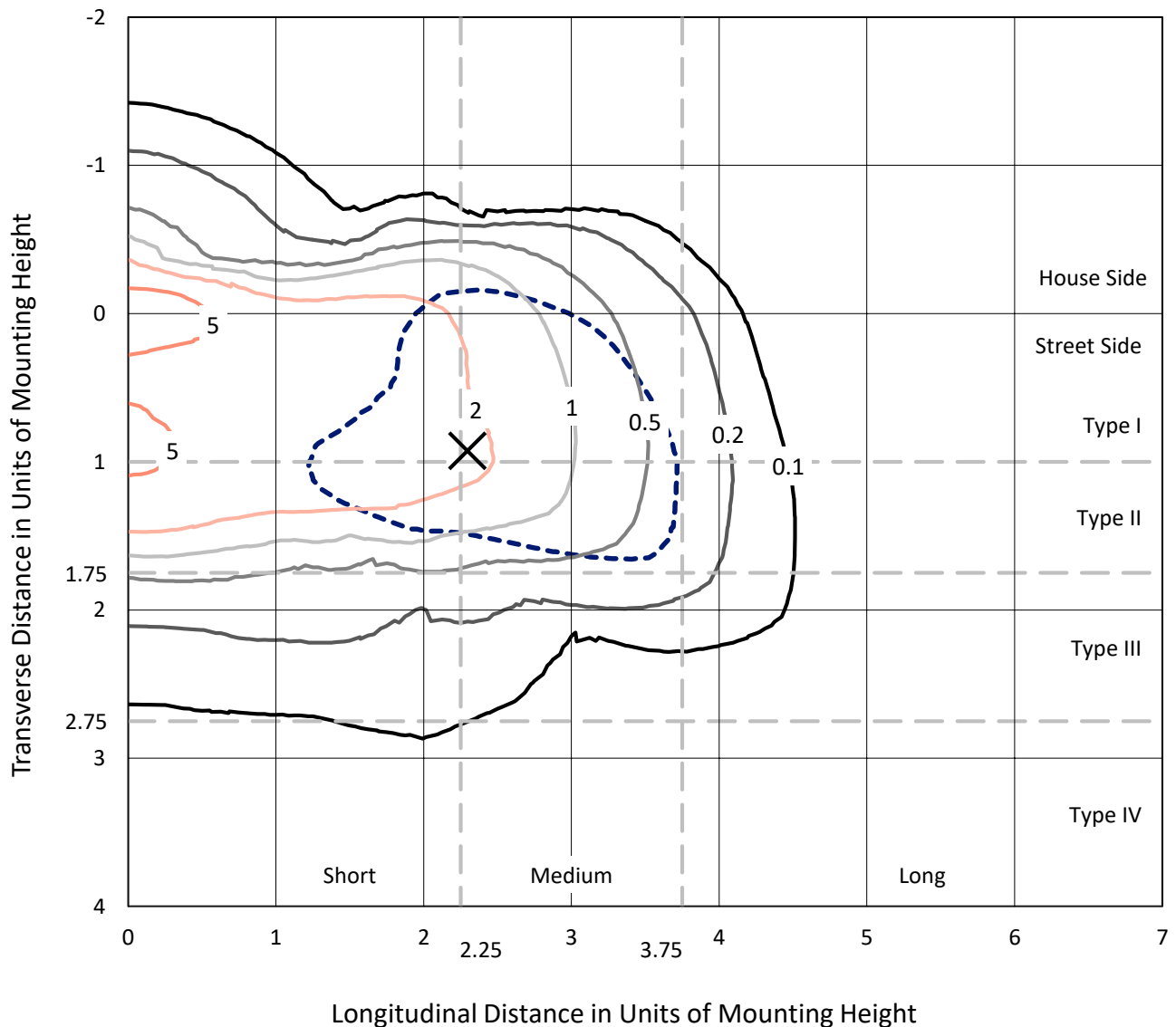
Input Watts (W): 193
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

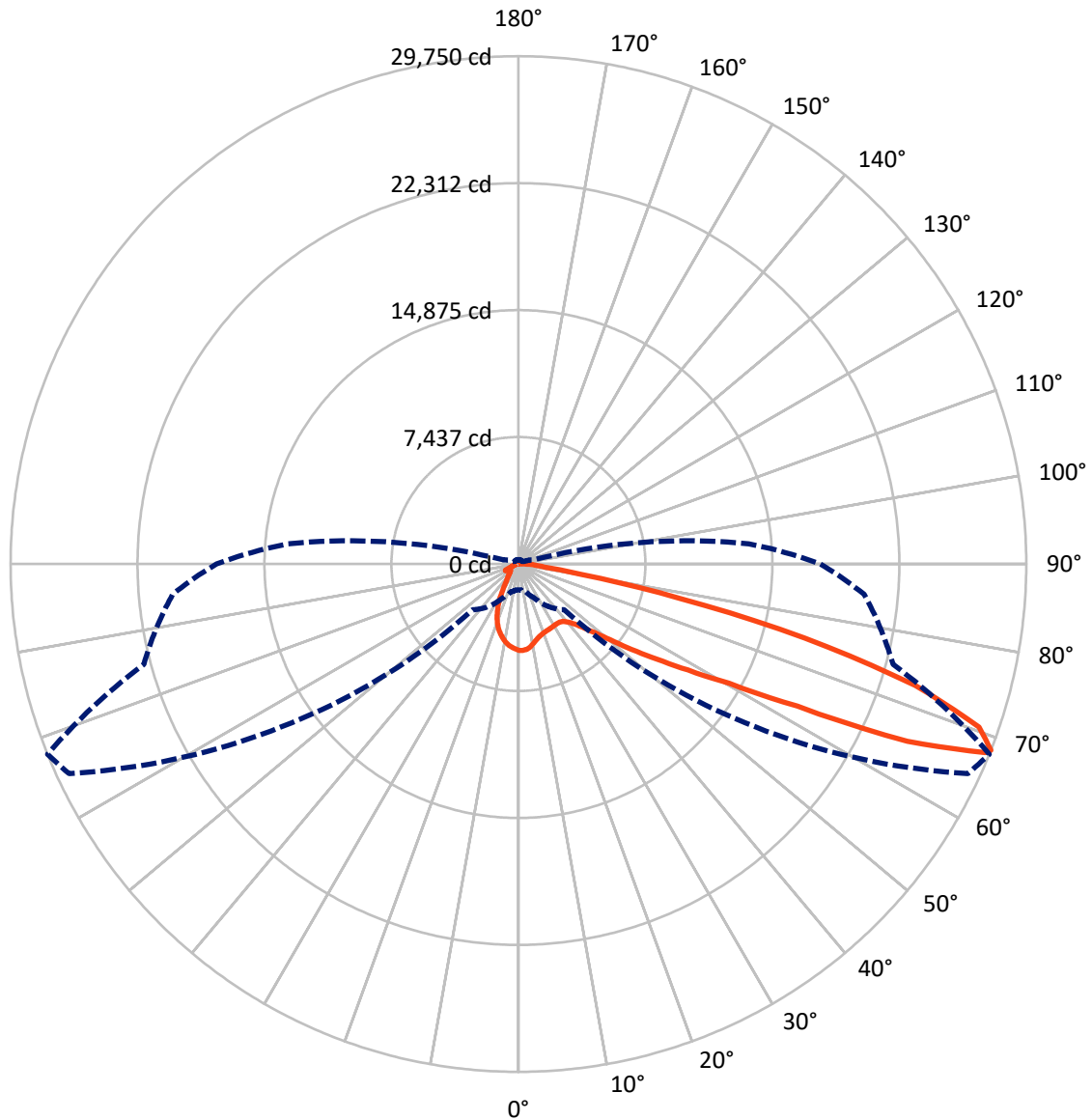
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.1 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
House Side	Lumens	3806.7	0.0	3806.7
	% Fixture	16.4	0.0	16.4
Street Side	Lumens	19461.3	0.0	19461.3
	% Fixture	83.6	0.0	83.6
Total	Lumens	23268.0	0.0	23268.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	433.8	1.9
10°-20°	1006.2	4.3
20°-30°	1360.8	5.8
30°-40°	1918.6	8.2
40°-50°	3155.0	13.6
50°-60°	4890.5	21.0
60°-70°	6340.9	27.3
70°-80°	3638.7	15.6
80°-90°	523.5	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°	23268.0	100.0
0°-180°	23268.0	100.0



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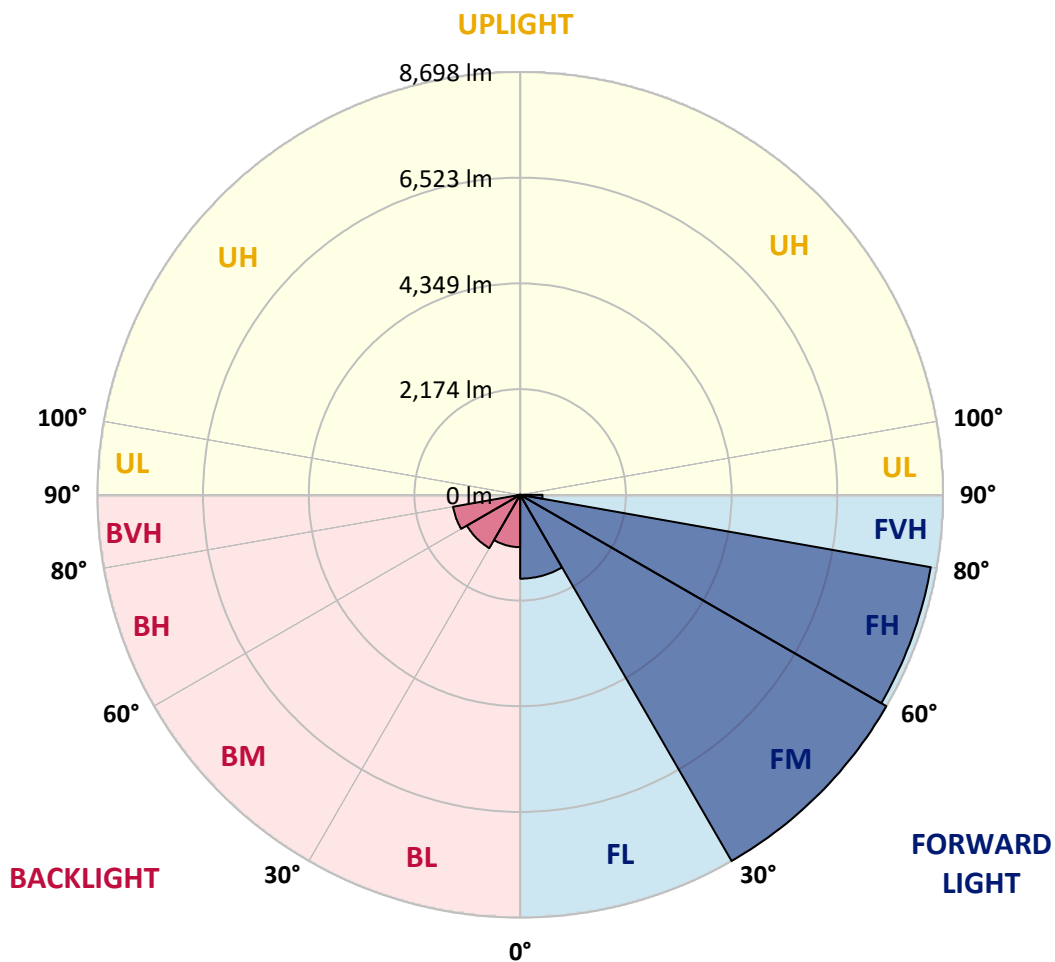
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1724.5	7.4			
FM (30°-60°)	8698.0	37.4			
FH (60°-80°)	8577.6	36.9			G4/12000
FVH (80°-90°)	461.1	2.0			G3/500
BL (0°-30°)	1076.2	4.6	B3/2500		
BM (30°-60°)	1266.2	5.4	B2/2500		
BH (60°-80°)	1402.0	6.0	B3/2500		G3/2500
BVH (80°-90°)	62.4	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°	5062.9	5062.9	5062.9	5062.9	5062.9	5062.9	5062.9	5062.9	5062.9	5062.9	5062.9
2.5°	4927.6	4967.2	4967.2	4996.0	5021.9	5043.2	5061.4	5061.4	5061.4	5049.2	5038.6
5°	4409.3	4462.5	4470.1	4543.1	4638.8	4755.9	4886.6	5002.1	5024.9	5067.5	5084.2
7.5°	4049.1	4065.8	4094.7	4144.9	4242.1	4386.5	4591.7	4850.1	4912.4	5046.2	5116.1
10°	3793.8	3807.4	3831.8	3881.9	3970.1	4100.8	4302.9	4638.8	4742.2	4979.3	5117.6
12.5°	3606.8	3617.4	3640.2	3685.8	3775.5	3892.6	4099.3	4448.9	4576.5	4912.4	5138.9
15°	3460.9	3479.1	3497.4	3541.5	3632.6	3745.1	3954.9	4310.5	4448.9	4859.2	5178.4
17.5°	3403.1	3412.3	3415.3	3438.1	3520.2	3634.2	3843.9	4213.3	4356.1	4816.7	5208.8
20°	3439.6	3441.1	3410.7	3395.5	3442.7	3547.5	3751.2	4140.3	4286.2	4778.7	5221.0
22.5°	3599.2	3599.2	3520.2	3453.3	3421.4	3486.7	3688.9	4090.1	4248.2	4749.8	5221.0
25°	3903.2	3889.5	3766.4	3634.2	3492.8	3465.5	3649.4	4058.2	4219.3	4734.6	5201.2
27.5°	4302.9	4290.8	4134.2	3938.2	3682.8	3511.1	3635.7	4032.4	4190.5	4711.8	5158.7
30°	4789.3	4778.7	4600.8	4344.0	3967.0	3655.4	3667.6	4014.2	4167.7	4673.8	5087.2
32.5°	5274.2	5268.1	5126.7	4863.8	4359.2	3900.2	3751.2	4011.1	4155.5	4628.2	5000.6
35°	5762.1	5762.1	5675.4	5453.5	4886.6	4268.0	3926.0	4067.4	4178.3	4603.9	4926.1
37.5°	6482.5	6453.7	6292.5	6063.0	5550.8	4745.2	4208.7	4185.9	4266.5	4644.9	4901.8
40°	7598.2	7514.6	7111.8	6725.7	6275.8	5356.3	4622.1	4415.4	4464.1	4784.8	4959.6
42.5°	8765.5	8633.2	8099.7	7482.6	7025.1	6110.1	5164.7	4787.8	4786.3	5055.3	5143.5
45°	9767.1	9698.7	9121.1	8338.4	7880.9	6958.3	5850.2	5341.1	5286.3	5474.8	5497.6
47.5°	10349.2	10303.7	9955.6	9244.3	8896.2	7959.9	6719.6	6108.6	6005.3	6117.7	6082.8
50°	10188.1	10232.2	10131.9	9768.6	9987.5	9367.4	7827.7	7160.4	6964.4	7076.8	6991.7
52.5°	9340.0	9458.6	9548.2	9618.2	10615.2	11250.6	9219.9	8473.6	8311.0	8291.3	8209.2
55°	7812.5	8000.9	8283.7	8797.4	10446.5	12762.9	11651.8	10062.0	9824.9	9700.2	9732.2
57.5°	5316.7	5602.5	6212.0	7189.3	9569.5	13407.4	15248.0	12113.9	11712.6	11268.8	11372.2
60°	2928.9	3167.5	3892.6	4877.5	7567.8	13311.6	18435.3	15448.6	14185.6	13009.1	13221.9
62.5°	1895.4	1947.0	2486.6	3331.7	4644.9	11752.2	20206.0	21022.2	18345.6	15304.2	15603.7
65°	1523.0	1559.5	1823.9	2687.2	3235.9	7560.2	20285.1	26804.1	25039.4	18423.2	18432.3
67.5°	1488.0	1504.7	1658.3	2260.1	3035.3	4116.0	17534.0	29084.0	29492.9	22104.4	20324.6
68°	1509.3	1529.1	1684.1	2190.2	3033.8	3793.8	16205.6	29049.0	29749.7	22720.0	20324.6
70°	1331.5	1355.8	1717.5	2266.2	2904.6	3261.8	11097.1	27506.3	28634.1	24135.1	19285.0
72.5°	696.1	676.4	849.6	1789.0	3269.4	3398.6	5862.4	22979.9	24296.2	22352.2	16661.5
75°	542.6	494.0	475.7	706.8	2875.7	3524.7	3404.7	16333.2	17327.3	16112.8	11136.6
77.5°	510.7	451.4	416.5	418.0	1266.1	3667.6	2754.1	9612.1	9612.1	7686.3	3553.6
80°	410.4	355.7	332.9	380.0	611.0	3380.3	2874.2	4380.5	3736.0	1986.6	978.8
82.5°	270.5	241.7	243.2	308.5	463.6	2257.1	3328.7	2162.9	1624.8	880.0	576.1
85°	171.8	147.4	164.2	215.8	346.5	1006.2	3295.2	1503.2	1076.1	494.0	287.3
87.5°	86.6	66.9	82.1	112.5	211.3	288.8	2713.1	1342.1	798.0	205.2	156.6
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°	5062.9	5062.9	5062.9	5062.9	5062.9	5062.9	5062.9	5062.9	5062.9	5062.9	5062.9
2.5°	5038.6	5005.2	4988.4	4961.1	4927.6	4894.2	4871.4	4860.8	4854.7	4857.7	4856.2
5°	5075.1	5031.0	4959.6	4857.7	4752.8	4641.9	4556.8	4491.4	4450.4	4438.2	4435.2
7.5°	5102.4	5038.6	4904.8	4719.4	4540.1	4345.5	4179.8	4047.6	3957.9	3916.9	3915.4
10°	5097.9	5015.8	4804.5	4530.9	4268.0	3982.2	3722.3	3500.4	3339.3	3261.8	3258.7
12.5°	5102.4	4990.0	4681.4	4310.5	3933.6	3524.7	3138.7	2793.6	2553.5	2439.5	2434.9
15°	5120.7	4962.6	4555.3	4064.3	3543.0	2965.4	2413.7	1980.5	1761.6	1687.1	1687.1
17.5°	5119.1	4917.0	4409.3	3778.6	3079.4	2305.7	1647.6	1380.1	1358.8	1427.2	1437.9
20°	5088.7	4844.0	4220.9	3439.6	2535.3	1595.9	1117.2	1079.2	1249.4	1437.9	1459.1
22.5°	5041.6	4749.8	4003.5	3046.0	1901.4	1039.6	861.8	919.6	1150.6	1384.7	1418.1
25°	4976.3	4635.8	3754.2	2588.5	1264.6	747.8	718.9	790.4	953.0	1109.6	1133.9
27.5°	4880.5	4491.4	3482.2	2093.0	807.1	615.6	626.2	676.4	746.3	813.2	826.8
30°	4760.4	4322.7	3185.8	1544.3	612.5	550.2	568.5	598.9	629.3	671.8	680.9
32.5°	4638.8	4150.9	2877.2	1060.9	535.0	515.3	533.5	550.2	576.1	604.9	611.0
35°	4529.4	3991.4	2559.6	740.2	501.6	492.5	501.6	512.2	538.1	566.9	570.0
37.5°	4450.4	3860.6	2228.2	585.2	481.8	472.7	477.3	481.8	512.2	554.8	559.3
40°	4439.7	3774.0	1892.3	525.9	466.6	454.5	451.4	454.5	494.0	542.6	547.2
42.5°	4543.1	3778.6	1564.0	501.6	454.5	440.8	428.6	434.7	469.7	507.7	510.7
45°	4787.8	3885.0	1279.8	490.9	443.8	433.2	414.9	418.0	434.7	454.5	457.5
47.5°	5219.5	4117.5	1062.4	484.9	434.7	425.6	402.8	393.7	395.2	405.8	405.8
50°	5909.5	4506.6	930.2	478.8	427.1	410.4	384.5	366.3	361.7	367.8	369.3
52.5°	6938.5	5173.9	866.4	466.6	413.4	390.6	361.7	343.5	335.9	342.0	342.0
55°	8329.3	6239.3	836.0	449.9	396.7	366.3	340.5	325.3	319.2	323.7	323.7
57.5°	9914.5	7624.0	887.6	427.1	375.4	340.5	322.2	311.6	307.0	311.6	313.1
60°	11797.7	9435.8	1243.3	398.2	352.6	317.7	307.0	300.9	297.9	302.5	302.5
62.5°	14301.1	11846.4	1924.2	375.4	328.3	296.4	293.3	290.3	287.3	291.8	291.8
65°	17003.5	14039.7	1980.5	361.7	307.0	278.1	279.7	279.7	276.6	281.2	281.2
67.5°	17863.8	13849.7	1106.5	345.0	281.2	259.9	266.0	266.0	264.5	269.0	267.5
68°	17681.4	13548.7	963.6	340.5	276.6	255.3	261.4	262.9	261.4	266.0	264.5
70°	16322.6	11895.0	633.8	314.6	256.9	240.2	249.3	250.8	249.3	255.3	253.8
72.5°	13474.2	8922.0	468.1	275.1	232.6	220.4	229.5	231.0	232.6	238.6	237.1
75°	8557.2	4927.6	369.3	234.1	208.2	197.6	206.7	211.3	214.3	223.4	218.9
77.5°	2343.7	1495.6	299.4	199.1	179.4	174.8	180.9	187.0	190.0	200.6	193.0
80°	820.8	661.2	249.3	168.7	149.0	147.4	153.5	159.6	162.6	171.8	162.6
82.5°	498.5	431.7	199.1	132.2	117.0	115.5	123.1	129.2	132.2	132.2	126.2
85°	259.9	228.0	145.9	92.7	80.6	76.0	89.7	97.3	98.8	97.3	92.7
87.5°	145.9	129.2	77.5	44.1	36.5	38.0	47.1	57.8	62.3	60.8	57.8
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)