

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: P196620

Luminaire Tested: **NAV-AF-06-D-UNV-SL3-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196620
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24262)
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-SL3-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28111.3 lumens
Efficiency: N/A
Efficacy: 112.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

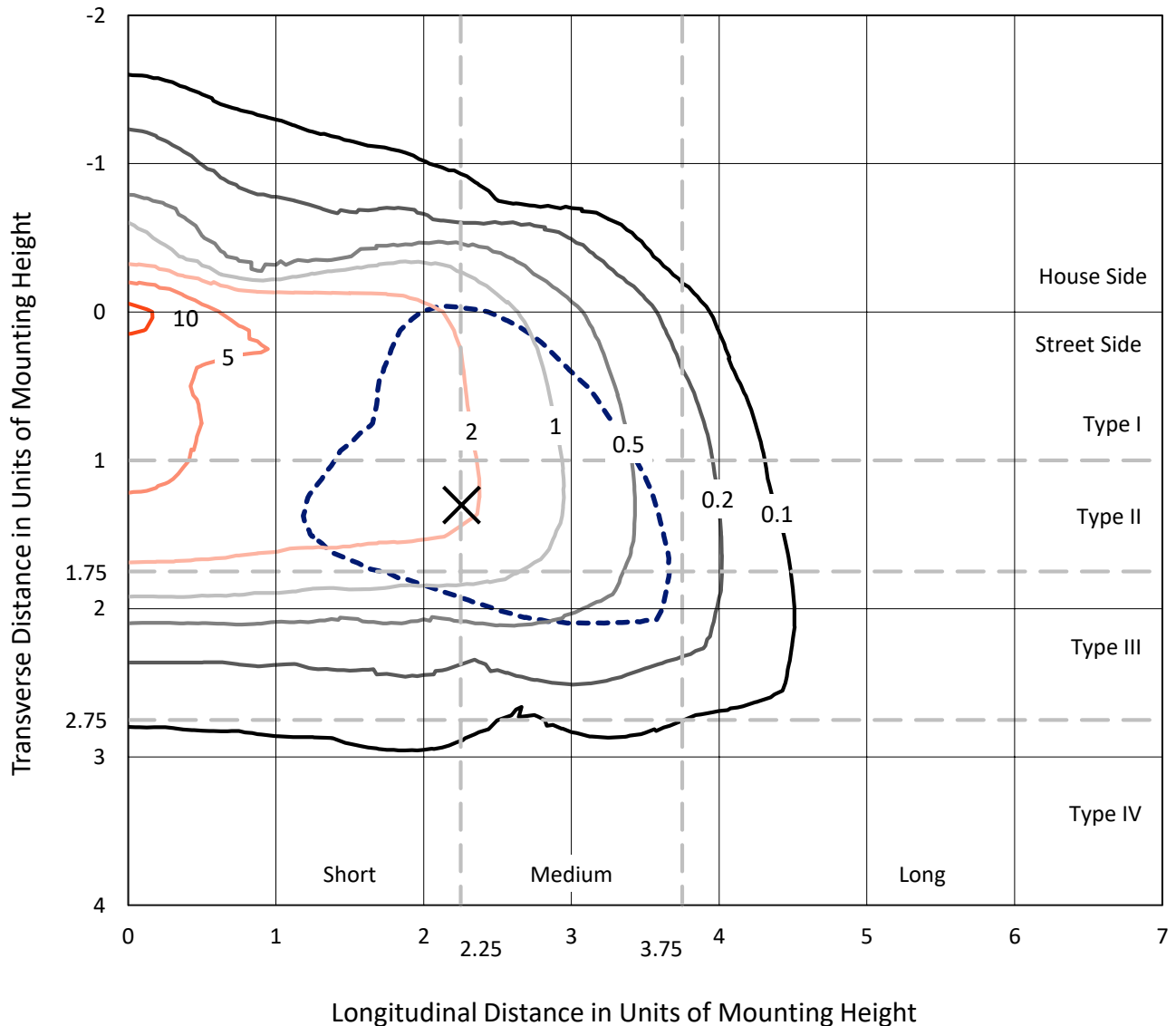
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

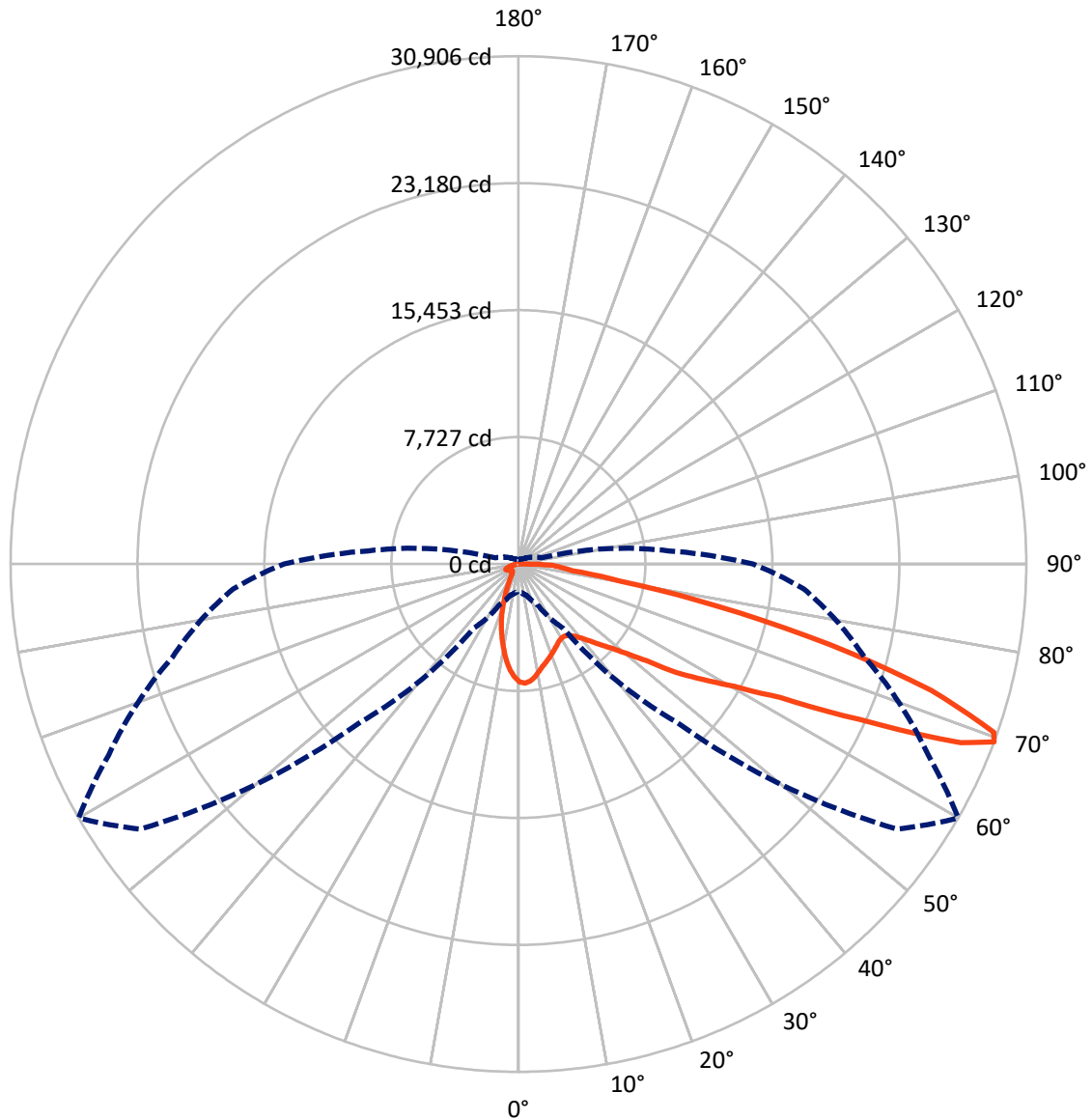
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.5 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4009.6	0.0	4009.6
	% Fixture	14.3	0.0	14.3
Street Side	Lumens	24101.7	0.0	24101.7
	% Fixture	85.7	0.0	85.7
Total	Lumens	28111.3	0.0	28111.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	608.5	2.2
10°-20°	1302.9	4.6
20°-30°	1662.0	5.9
30°-40°	2287.1	8.1
40°-50°	3704.7	13.2
50°-60°	5814.3	20.7
60°-70°	7751.5	27.6
70°-80°	4311.6	15.3
80°-90°	668.7	2.4
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°	28111.3	100.0
0°-180°	28111.3	100.0

Coefficient of Utilization



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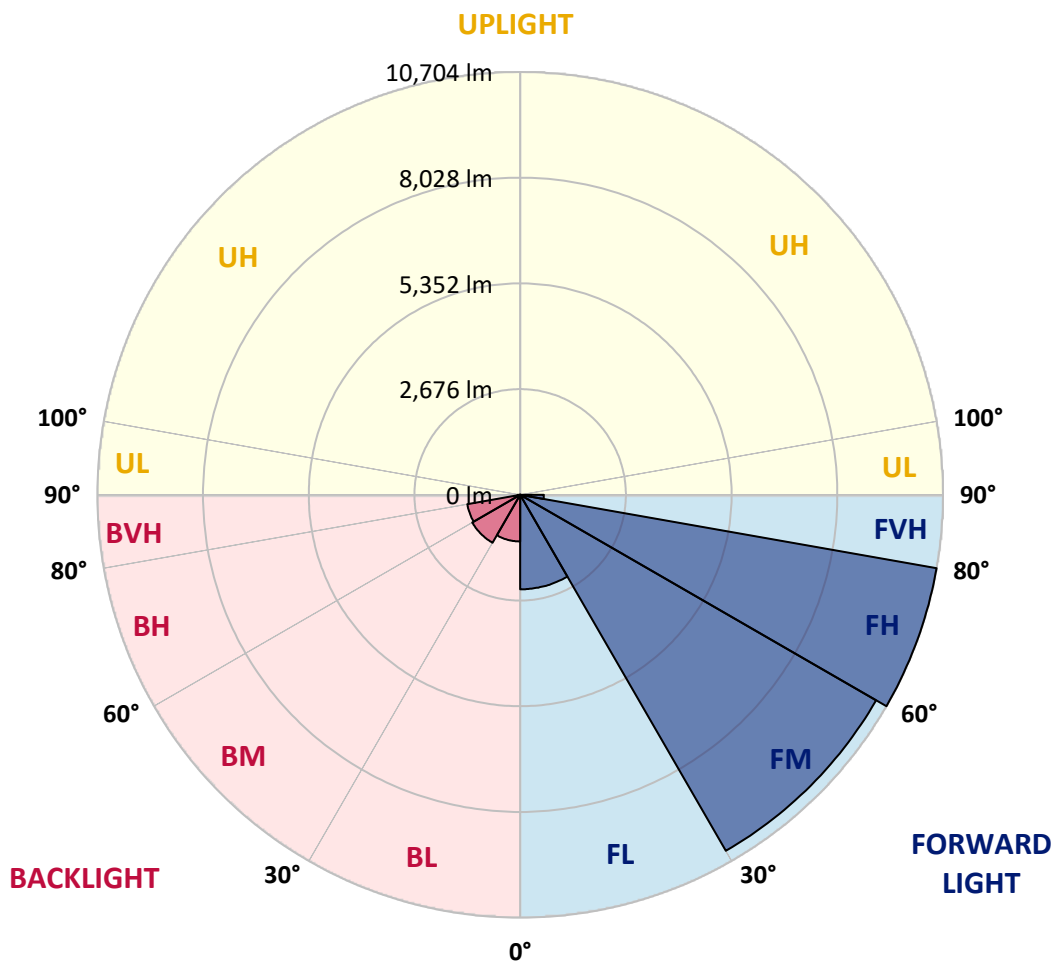
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2391.7	8.5			
FM	(30°-60°)	10405.3	37.0			
FH	(60°-80°)	10703.7	38.1			G4/12000
FVH	(80°-90°)	600.9	2.1			G4/750
BL	(0°-30°)	1181.6	4.2	B3/2500		
BM	(30°-60°)	1400.7	5.0	B2/2500		
BH	(60°-80°)	1359.5	4.8	B3/2500		G3/2500
BVH	(80°-90°)	67.8	0.2			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	7172.7	7172.7	7172.7	7172.7	7172.7	7172.7	7172.7	7172.7	7172.7	7172.7	7172.7
2.5°	7363.7	7383.6	7383.6	7367.4	7358.4	7306.0	7275.5	7253.8	7215.9	7145.7	7082.5
5°	7100.5	7138.5	7154.7	7161.8	7208.7	7192.5	7194.2	7179.9	7147.4	7071.7	6969.0
7.5°	6617.5	6624.7	6653.6	6702.2	6815.8	6895.2	6960.1	6972.6	6965.4	6909.5	6765.4
10°	6141.6	6154.2	6188.5	6271.4	6379.5	6493.1	6633.6	6691.4	6734.6	6716.6	6534.6
12.5°	5746.8	5748.5	5786.5	5882.0	6002.8	6145.2	6336.3	6426.4	6529.2	6570.7	6366.9
15°	5366.5	5391.7	5427.8	5543.2	5692.7	5873.0	6093.0	6217.3	6352.5	6471.4	6237.2
17.5°	5078.1	5097.8	5119.5	5215.1	5388.1	5613.4	5885.6	6019.0	6197.5	6379.5	6103.8
20°	4919.4	4926.6	4910.3	4957.2	5103.3	5346.6	5662.1	5822.5	6035.3	6291.1	5966.7
22.5°	4886.9	4886.9	4827.5	4818.5	4883.4	5088.9	5431.4	5627.8	5887.4	6230.0	5844.2
25°	5038.4	5027.6	4915.8	4813.1	4789.6	4894.2	5211.4	5453.0	5761.2	6228.1	5752.2
27.5°	5325.0	5310.5	5171.8	4998.7	4849.2	4804.0	5042.0	5288.9	5662.1	6289.4	5705.3
30°	5681.9	5676.4	5535.9	5319.7	5072.6	4840.0	4975.2	5204.2	5595.3	6402.9	5703.6
32.5°	6073.0	6047.8	5961.3	5745.0	5424.1	5040.1	5014.9	5207.9	5577.3	6568.7	5745.0
35°	6489.5	6471.4	6449.8	6231.7	5871.1	5393.5	5189.9	5332.2	5665.6	6799.5	5862.2
37.5°	7019.5	6999.5	7035.6	6797.8	6402.9	5856.8	5485.5	5581.0	5845.9	7134.8	6080.3
40°	7962.3	7904.6	7803.7	7437.8	7023.0	6424.6	5912.7	5927.1	6154.2	7583.6	6430.0
42.5°	9510.7	9325.1	8825.8	8153.4	7677.4	7084.4	6469.7	6401.2	6579.6	8176.8	6938.4
45°	11062.8	10853.7	10010.0	8933.9	8355.3	7792.8	7158.2	6994.2	7109.6	8867.2	7592.8
47.5°	12065.1	11962.2	11010.5	9714.5	9065.5	8564.3	7946.0	7675.6	7758.5	9649.6	8400.3
50°	12358.9	12270.6	11522.5	10325.5	9736.1	9496.3	8921.2	8562.5	8577.0	10563.4	9368.3
52.5°	12138.9	12102.8	11607.1	10704.0	10352.6	10478.7	10271.5	9772.0	9653.2	11565.7	10417.5
55°	11845.2	11857.8	11666.7	11084.5	10979.9	11394.4	12037.9	11636.0	11131.4	12609.4	11509.8
57.5°	10920.4	10929.4	11430.4	11809.1	12176.8	12677.9	13413.4	13244.0	12656.3	13736.1	12733.8
60°	8793.3	8863.5	9979.4	11659.5	13545.0	15207.0	15387.3	15095.3	14278.6	15034.0	14325.5
62.5°	6282.2	6345.2	7637.8	10121.8	13384.6	18069.7	19032.2	17871.3	16479.7	16975.4	16564.5
65°	3300.6	3289.8	4290.3	6994.2	11273.7	18733.0	24775.4	22799.7	20187.8	19645.2	18727.6
67.5°	1844.1	1903.7	2291.1	3527.8	7347.5	16486.9	28443.8	29026.1	25343.2	21763.3	18633.8
69°	1705.3	1725.1	1984.7	2727.4	4789.6	13602.7	28128.4	30906.1	27517.3	21772.2	17433.3
70°	1656.6	1678.2	1914.4	2512.9	4023.5	11145.7	26980.1	30686.3	28045.4	21289.1	16341.0
72.5°	1485.4	1514.3	1743.1	2258.7	3390.8	5745.0	21732.5	26264.4	25404.5	18606.9	12670.7
75°	1267.3	1315.9	1662.1	2242.4	3212.3	3652.1	14493.2	19567.6	18907.9	13307.0	7188.9
77.5°	524.6	530.0	726.5	1642.1	3370.9	3495.3	7789.2	12394.9	10972.7	5835.1	2165.0
80°	365.9	358.7	362.3	479.5	2720.2	3518.7	3996.4	6303.8	4899.5	1539.5	1013.1
82.5°	308.2	304.7	319.0	301.0	921.2	3992.9	3342.1	3286.2	2307.3	829.2	483.2
85°	203.7	198.3	261.3	274.0	438.0	3170.8	3594.4	2583.2	1719.7	443.5	205.5
87.5°	99.1	100.9	149.5	185.6	232.5	1004.1	3443.1	2042.4	1328.6	192.9	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7172.7	7172.7	7172.7	7172.7	7172.7	7172.7	7172.7	7172.7	7172.7	7172.7	7172.7
2.5°	7057.3	7003.2	6954.6	6893.2	6846.4	6806.8	6752.7	6750.9	6741.9	6754.5	6758.1
5°	6900.5	6810.3	6673.3	6520.1	6412.0	6269.7	6130.7	6083.9	6031.6	6026.2	6042.5
7.5°	6664.4	6523.8	6289.4	6055.0	5820.7	5581.0	5353.8	5238.4	5126.7	5092.5	5108.6
10°	6401.2	6222.8	5864.0	5481.9	5151.9	4795.1	4448.9	4225.4	4021.8	3935.2	3956.9
12.5°	6195.6	5968.5	5463.8	4968.0	4474.1	3962.2	3506.1	3064.5	2731.1	2581.4	2590.4
15°	6019.0	5728.8	5088.9	4429.1	3810.8	3109.5	2476.8	1964.9	1672.9	1564.7	1561.1
17.5°	5827.9	5476.4	4697.7	3928.0	3125.8	2258.7	1658.4	1355.6	1240.2	1204.1	1204.1
20°	5624.2	5216.8	4288.4	3381.8	2404.7	1577.2	1247.4	1130.3	1087.0	1076.2	1074.3
22.5°	5435.0	4962.7	3877.5	2799.4	1739.5	1196.9	1061.8	1016.6	1009.4	1018.6	1018.6
25°	5285.3	4739.1	3461.2	2186.6	1265.4	1002.2	944.5	939.2	966.2	998.6	1004.1
27.5°	5173.5	4539.0	3050.1	1597.2	995.1	872.4	852.7	876.0	939.2	1004.1	1016.6
30°	5096.1	4367.7	2558.0	1148.4	829.2	764.3	773.3	814.7	910.3	1009.4	1036.6
32.5°	5061.8	4229.0	2062.3	881.5	708.4	672.4	695.9	749.8	849.1	948.2	980.6
35°	5094.2	4128.1	1604.4	731.8	620.1	593.1	620.1	676.0	740.9	789.5	809.4
37.5°	5211.4	4092.0	1207.8	649.0	562.4	535.4	557.0	594.9	623.8	641.8	650.7
40°	5458.4	4129.9	946.4	605.8	530.0	499.4	504.8	522.8	542.6	557.0	558.9
42.5°	5851.4	4254.2	841.9	589.5	510.1	470.5	461.5	474.0	495.7	515.6	519.2
45°	6374.0	4461.5	831.0	594.9	501.2	447.1	429.1	441.6	470.5	502.9	508.4
47.5°	7050.1	4789.6	881.5	623.8	506.5	434.5	407.4	420.0	457.9	501.2	508.4
50°	7850.5	5243.9	975.2	667.0	531.8	434.5	398.4	409.1	448.8	497.5	504.8
52.5°	8793.3	5876.6	1072.6	710.1	567.8	450.7	402.0	400.2	436.3	481.3	490.3
55°	9833.4	6662.5	1166.4	748.1	587.7	472.3	411.1	389.4	418.3	454.3	461.5
57.5°	11057.4	7738.8	1330.3	784.2	598.5	488.5	421.8	378.6	394.8	420.0	425.4
60°	12717.6	9319.6	1649.4	845.4	618.3	495.7	423.6	367.7	365.9	383.9	385.8
62.5°	14882.5	11170.8	1954.1	917.6	658.0	497.5	416.4	360.5	342.5	347.9	347.9
65°	16422.0	11852.3	1865.7	978.9	694.1	495.7	409.1	355.1	324.5	315.4	315.4
67.5°	15546.0	10469.7	1584.5	995.1	697.6	476.0	393.0	342.5	308.2	286.6	286.6
69°	14258.9	9177.2	1454.7	966.2	668.7	452.5	375.0	329.9	297.4	272.2	272.2
70°	13209.8	8198.4	1375.5	932.0	634.6	432.6	358.7	317.3	286.6	265.0	263.2
72.5°	9862.2	5471.0	1175.3	803.9	520.9	365.9	313.7	283.0	257.8	243.3	243.3
75°	5204.2	2741.9	962.6	656.2	402.0	292.0	257.8	237.9	223.6	221.7	219.9
77.5°	1705.3	1240.2	692.2	494.0	295.6	227.2	205.5	192.9	191.1	198.3	198.3
80°	921.2	740.9	445.2	333.5	205.5	169.5	158.7	156.8	162.2	173.0	173.0
82.5°	447.1	365.9	265.0	205.5	140.6	124.3	124.3	126.2	133.4	146.0	146.0
85°	192.9	173.0	153.2	115.4	86.6	77.5	88.3	97.4	102.7	111.8	115.4
87.5°	91.9	81.1	70.3	45.1	37.8	39.7	46.9	57.7	68.5	75.7	77.5
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)