

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: P195162

Luminaire Tested: **NAV-AF-06-D-UNV-SL3-7060-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195162
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24263)
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-SL3-7060-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 5700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30579 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G5

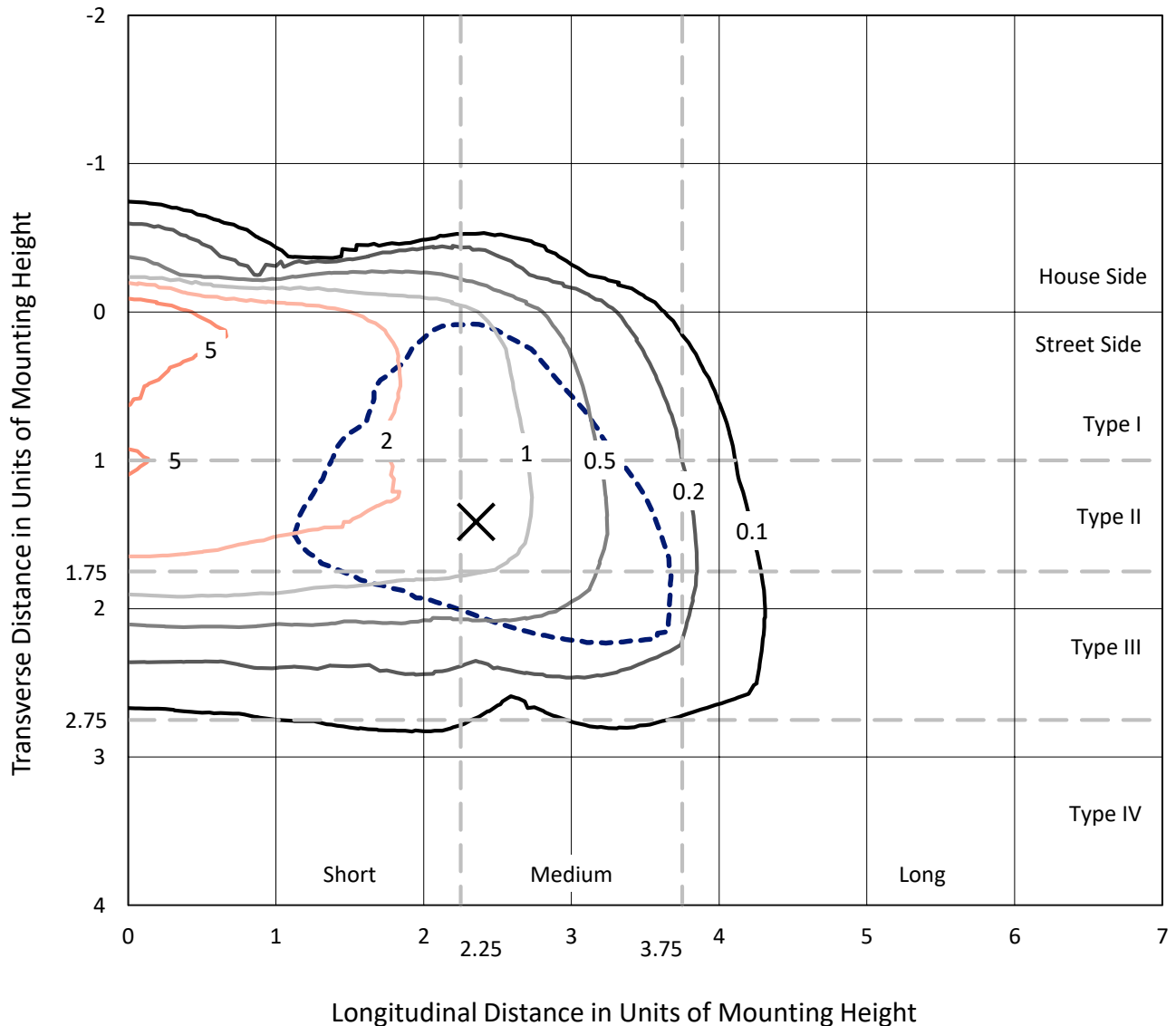
Input Watts (W): 333
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

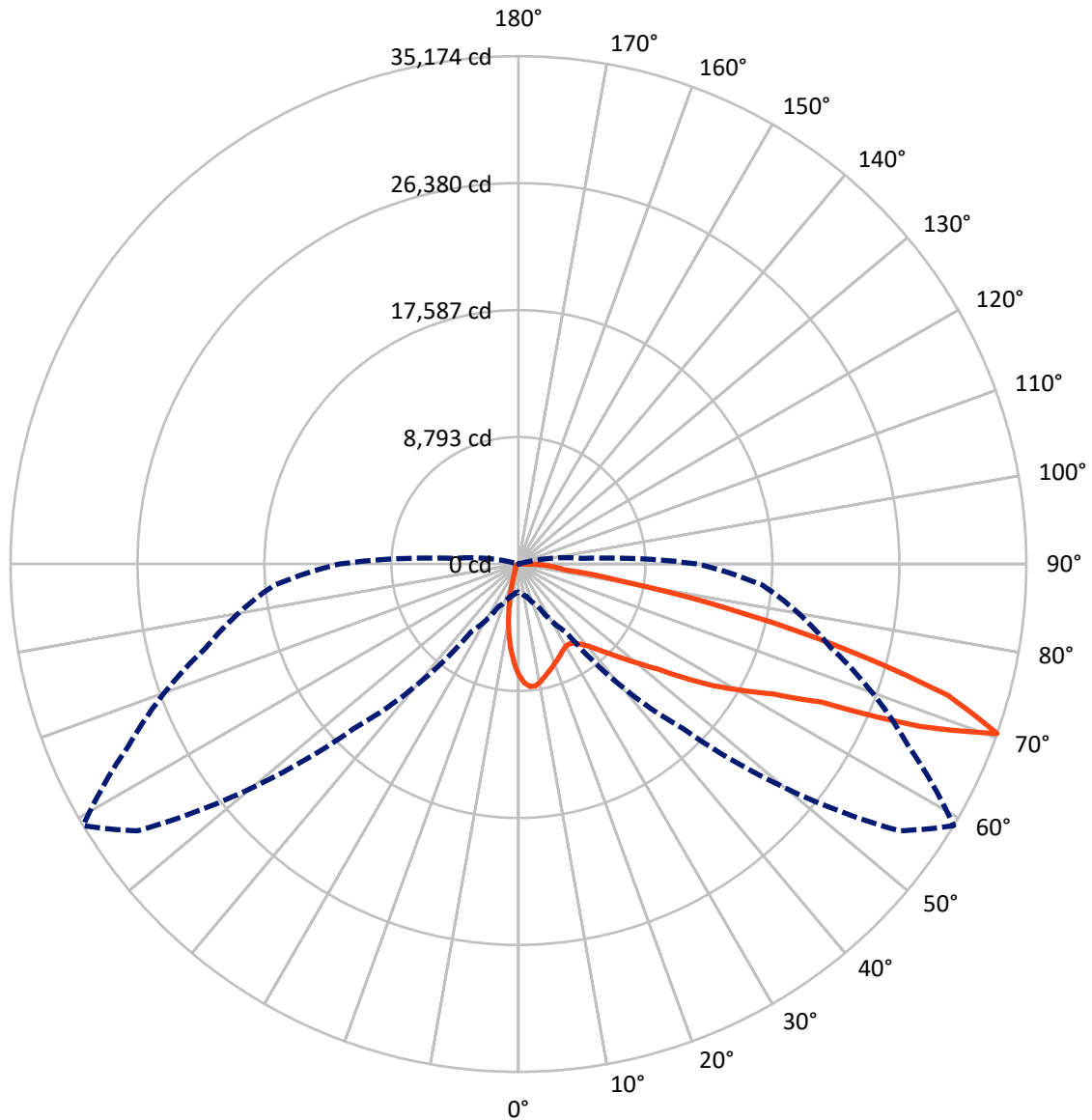
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.1 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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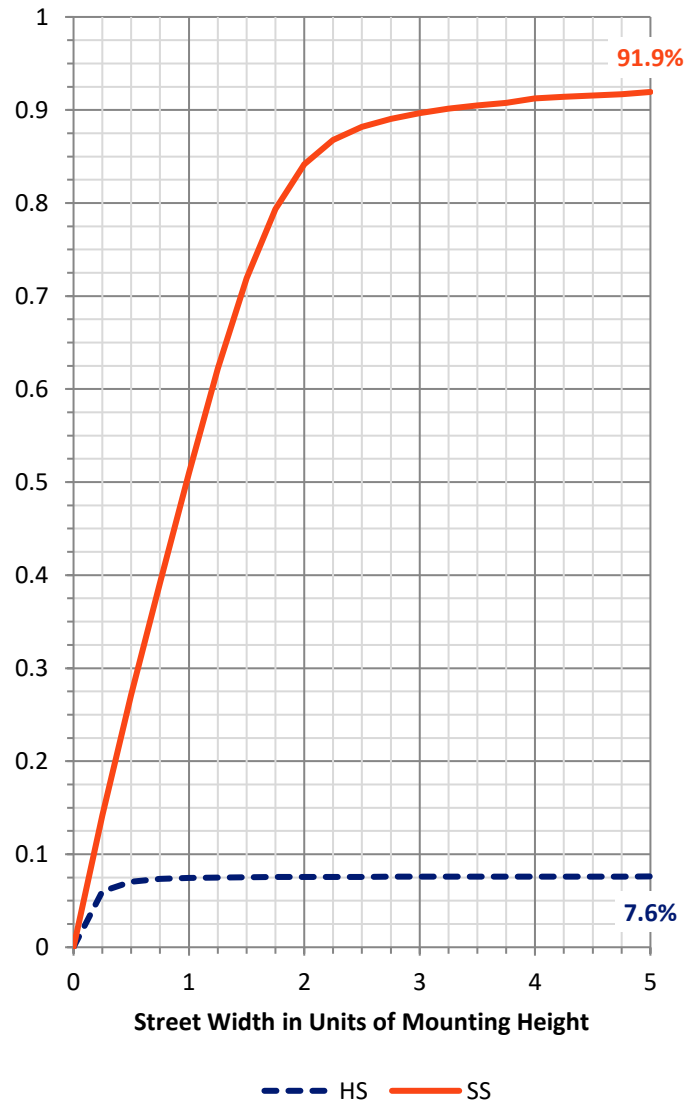
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2350.7	0.0	2350.7
	% Fixture	7.7	0.0	7.7
Street Side	Lumens	28228.3	0.0	28228.3
	% Fixture	92.3	0.0	92.3
Total	Lumens	30579.0	0.0	30579.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	635.8	2.1
10°-20°	1333.6	4.4
20°-30°	1805.3	5.9
30°-40°	2605.3	8.5
40°-50°	4326.8	14.1
50°-60°	6618.3	21.6
60°-70°	8231.6	26.9
70°-80°	4550.4	14.9
80°-90°	471.8	1.5
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°	30579.0	100.0
0°-180°	30579.0	100.0

Coefficient of Utilization



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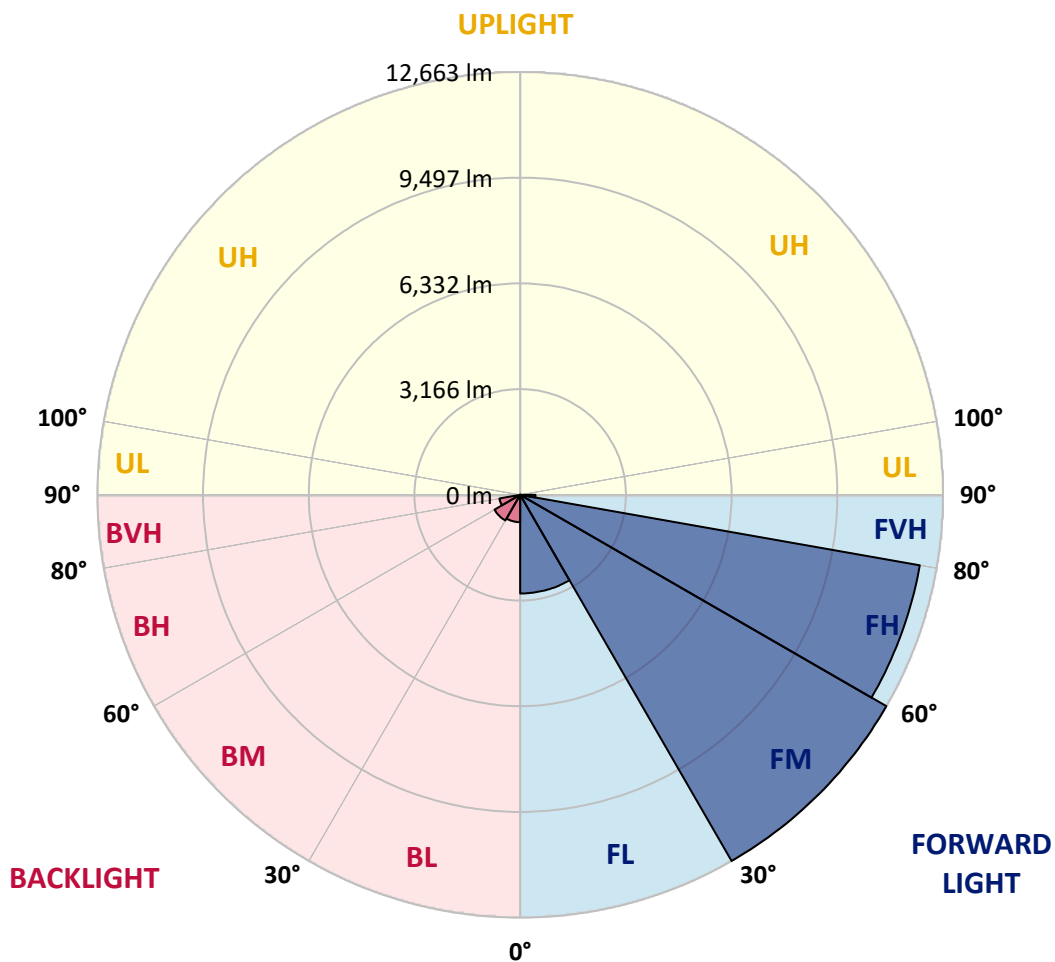
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2955.6	9.7			
FM	(30°-60°)	12663.1	41.4			
FH	(60°-80°)	12151.5	39.7			G5
FVH	(80°-90°)	458.2	1.5			G3/500
BL	(0°-30°)	819.2	2.7	B2/1000		
BM	(30°-60°)	887.3	2.9	B1/1000		
BH	(60°-80°)	630.6	2.1	B2/1000		G2/1000
BVH	(80°-90°)	13.6	0.0			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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	7732.3	7732.3	7732.3	7732.3	7732.3	7732.3	7732.3	7732.3	7732.3	7732.3	7732.3
2.5°	8740.4	8726.6	8668.9	8657.3	8592.8	8463.6	8313.6	8253.7	8131.4	7937.6	7723.1
5°	8885.7	8892.6	8897.3	8871.9	8862.7	8756.5	8590.5	8518.9	8355.2	8036.8	7644.7
7.5°	8341.3	8359.8	8417.4	8442.8	8553.5	8595.1	8560.5	8514.3	8385.1	8009.1	7457.8
10°	7766.9	7801.5	7863.8	7905.3	8041.4	8152.2	8292.9	8304.4	8276.7	7916.9	7247.9
12.5°	7273.3	7305.6	7374.8	7457.8	7596.2	7739.2	7949.2	8023.0	8115.3	7856.9	7098.0
15°	6848.8	6858.1	6925.0	7028.8	7211.0	7407.1	7656.2	7764.6	7944.6	7833.8	6982.6
17.5°	6477.4	6479.7	6523.6	6618.2	6839.6	7098.0	7388.6	7531.6	7760.0	7801.5	6881.1
20°	6232.9	6230.6	6232.9	6283.7	6479.7	6786.5	7139.5	7289.4	7582.4	7762.3	6777.3
22.5°	6149.9	6138.3	6085.3	6066.8	6191.4	6461.3	6883.4	7079.5	7423.2	7750.8	6701.2
25°	6251.4	6244.5	6131.4	6025.3	6036.8	6205.2	6622.8	6862.7	7298.7	7792.3	6682.7
27.5°	6578.9	6565.1	6392.1	6184.5	6053.0	6083.0	6429.0	6680.4	7199.5	7893.8	6708.1
30°	7008.0	7010.3	6825.8	6574.3	6265.2	6094.5	6325.2	6562.8	7132.6	8046.1	6763.5
32.5°	7485.5	7483.2	7351.7	7061.1	6666.6	6306.7	6371.3	6572.0	7141.8	8269.8	6869.6
35°	7979.2	7953.8	7910.0	7653.9	7192.5	6678.1	6581.2	6728.9	7238.7	8565.1	7049.5
37.5°	8548.9	8539.7	8583.5	8313.6	7843.1	7224.8	6950.3	7049.5	7483.2	9001.1	7340.2
40°	9455.5	9404.7	9425.5	9058.7	8576.6	7960.7	7467.0	7492.4	7873.0	9577.8	7799.2
42.5°	11183.3	10978.0	10592.7	9905.3	9384.0	8777.3	8142.9	8099.1	8424.4	10276.7	8403.6
45°	13247.8	13012.5	12041.4	10839.6	10191.4	9653.9	8978.0	8860.3	9102.6	11109.5	9183.3
47.5°	14971.0	14717.3	13430.1	11815.3	11012.6	10558.1	9903.0	9764.6	9914.5	12076.0	10119.8
50°	15559.2	15418.5	14288.2	12627.3	11840.7	11573.1	11063.3	10832.6	10869.6	13118.7	11213.3
52.5°	15289.3	15240.9	14484.3	13183.3	12606.6	12694.2	12334.4	12092.1	12050.6	14258.2	12422.0
55°	14719.6	14696.5	14327.4	13492.4	13282.4	13720.7	14117.5	13907.6	13515.4	15469.3	13420.8
57.5°	13905.3	13992.9	14258.2	14087.5	14112.9	14804.9	15773.8	15882.2	15296.3	16433.5	14161.3
60°	11730.0	11965.3	13180.9	14726.5	15909.9	16608.8	17547.7	17750.7	16804.9	17093.2	15017.1
62.5°	8671.2	9008.0	10740.4	13580.0	16899.5	20039.0	19907.5	19817.6	18244.3	17976.7	16574.2
65°	5093.4	5487.8	6952.6	10611.2	15407.0	22244.3	24313.5	23067.8	20438.1	19812.9	19054.0
67.5°	2537.5	2539.8	3201.8	5600.9	11386.3	20705.7	30744.8	30025.1	25102.4	22518.8	20032.1
70°	1951.5	2004.6	2369.1	3254.9	5757.7	16126.7	32218.8	35173.8	29789.8	22398.8	16996.4
72.5°	1654.0	1688.6	2108.4	2832.7	4304.5	8853.4	27891.3	31090.8	28426.5	18924.8	12528.1
75°	1190.3	1218.0	1866.2	2569.8	3963.0	4392.1	19132.4	23058.6	21328.5	13312.4	6895.0
77.5°	295.3	293.0	650.5	2085.3	3545.5	3658.6	10978.0	14786.5	12237.5	5450.9	1771.6
80°	131.5	126.9	147.6	438.3	3298.7	3453.3	4828.1	7467.0	4694.3	883.5	542.1
82.5°	92.3	87.7	92.3	161.5	1102.6	3204.1	2918.1	3236.4	1718.6	302.2	230.7
85°	30.0	27.7	50.7	136.1	309.1	1847.7	2846.6	2417.5	1278.0	129.2	154.6
87.5°	4.6	4.6	18.5	73.8	90.0	615.9	1670.1	1674.7	574.4	76.1	69.2
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°	7732.3	7732.3	7732.3	7732.3	7732.3	7732.3	7732.3	7732.3	7732.3	7732.3	7732.3
2.5°	7614.7	7478.6	7287.1	7095.7	6922.6	6745.0	6602.0	6535.1	6505.1	6463.6	6373.6
5°	7439.4	7192.5	6772.7	6359.8	5974.6	5605.5	5289.4	5109.5	4915.7	4906.5	4811.9
7.5°	7157.9	6807.3	6145.3	5504.0	4915.7	4352.9	3868.5	3554.7	3340.2	3206.4	3114.2
10°	6844.2	6394.4	5517.8	4615.9	3815.4	3063.4	2440.6	2034.6	1787.8	1663.2	1591.7
12.5°	6595.1	6029.9	4899.6	3764.7	2761.2	1898.5	1319.5	1024.2	892.7	842.0	818.9
15°	6380.6	5695.4	4320.6	3003.4	1843.1	1091.1	763.5	666.7	645.9	645.9	643.6
17.5°	6163.7	5372.5	3757.7	2256.0	1160.3	715.1	602.1	588.2	590.5	597.5	597.5
20°	5958.4	5065.7	3215.7	1607.8	761.2	572.1	546.7	542.1	549.0	558.2	555.9
22.5°	5792.3	4795.8	2708.2	1104.9	585.9	519.0	502.9	496.0	500.6	507.5	505.2
25°	5674.7	4565.1	2242.2	770.5	509.8	472.9	454.4	445.2	440.6	445.2	442.9
27.5°	5603.2	4371.3	1803.9	579.0	456.7	426.8	403.7	385.2	373.7	373.7	369.1
30°	5557.0	4189.1	1414.1	479.8	412.9	380.6	348.3	322.9	304.5	299.9	297.6
32.5°	5554.7	4032.3	1056.5	424.4	371.4	334.5	295.3	263.0	242.2	237.6	235.3
35°	5612.4	3905.4	777.4	382.9	334.5	290.7	246.8	212.2	193.8	193.8	191.5
37.5°	5762.3	3831.6	588.2	350.6	304.5	253.7	207.6	175.3	159.2	163.8	163.8
40°	6041.5	3817.7	479.8	325.3	279.1	221.5	168.4	143.0	136.1	143.0	143.0
42.5°	6468.2	3891.5	426.8	306.8	256.1	189.2	140.7	122.3	120.0	126.9	126.9
45°	7024.1	4036.9	396.8	290.7	230.7	156.9	117.6	106.1	103.8	113.0	113.0
47.5°	7697.7	4232.9	369.1	272.2	205.3	129.2	99.2	90.0	90.0	99.2	101.5
50°	8495.9	4498.2	341.4	253.7	184.5	108.4	83.0	76.1	78.4	87.7	90.0
52.5°	9414.0	4823.5	316.0	237.6	161.5	87.7	69.2	64.6	66.9	76.1	78.4
55°	10205.2	5107.2	286.0	221.5	131.5	71.5	57.7	55.4	57.7	69.2	69.2
57.5°	10894.9	5379.4	258.4	196.1	103.8	57.7	46.1	46.1	50.7	62.3	64.6
60°	11810.7	5808.5	235.3	166.1	78.4	43.8	36.9	39.2	46.1	55.4	57.7
62.5°	13432.4	6537.4	205.3	138.4	57.7	34.6	30.0	32.3	41.5	53.1	55.4
65°	15462.4	7227.1	170.7	115.3	43.8	25.4	23.1	30.0	41.5	53.1	55.4
67.5°	15254.7	6286.0	133.8	92.3	32.3	20.8	18.5	27.7	39.2	53.1	55.4
70°	12371.3	4406.0	99.2	62.3	25.4	18.5	18.5	27.7	39.2	50.7	53.1
72.5°	8581.2	2452.1	76.1	41.5	23.1	18.5	16.1	25.4	36.9	50.7	53.1
75°	4083.0	752.0	60.0	30.0	20.8	16.1	13.8	25.4	36.9	50.7	53.1
77.5°	784.3	191.5	48.4	25.4	18.5	16.1	13.8	23.1	36.9	48.4	50.7
80°	265.3	85.4	39.2	23.1	18.5	16.1	13.8	23.1	34.6	46.1	48.4
82.5°	145.3	48.4	34.6	20.8	18.5	13.8	11.5	20.8	32.3	46.1	48.4
85°	113.0	34.6	27.7	20.8	18.5	13.8	11.5	20.8	32.3	43.8	46.1
87.5°	57.7	25.4	23.1	20.8	18.5	13.8	11.5	18.5	30.0	41.5	46.1
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)