

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: P270576

Luminaire Tested: **NAV-AF-05-D-UNV-AFL-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270576
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24160)
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-AFL-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21626 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

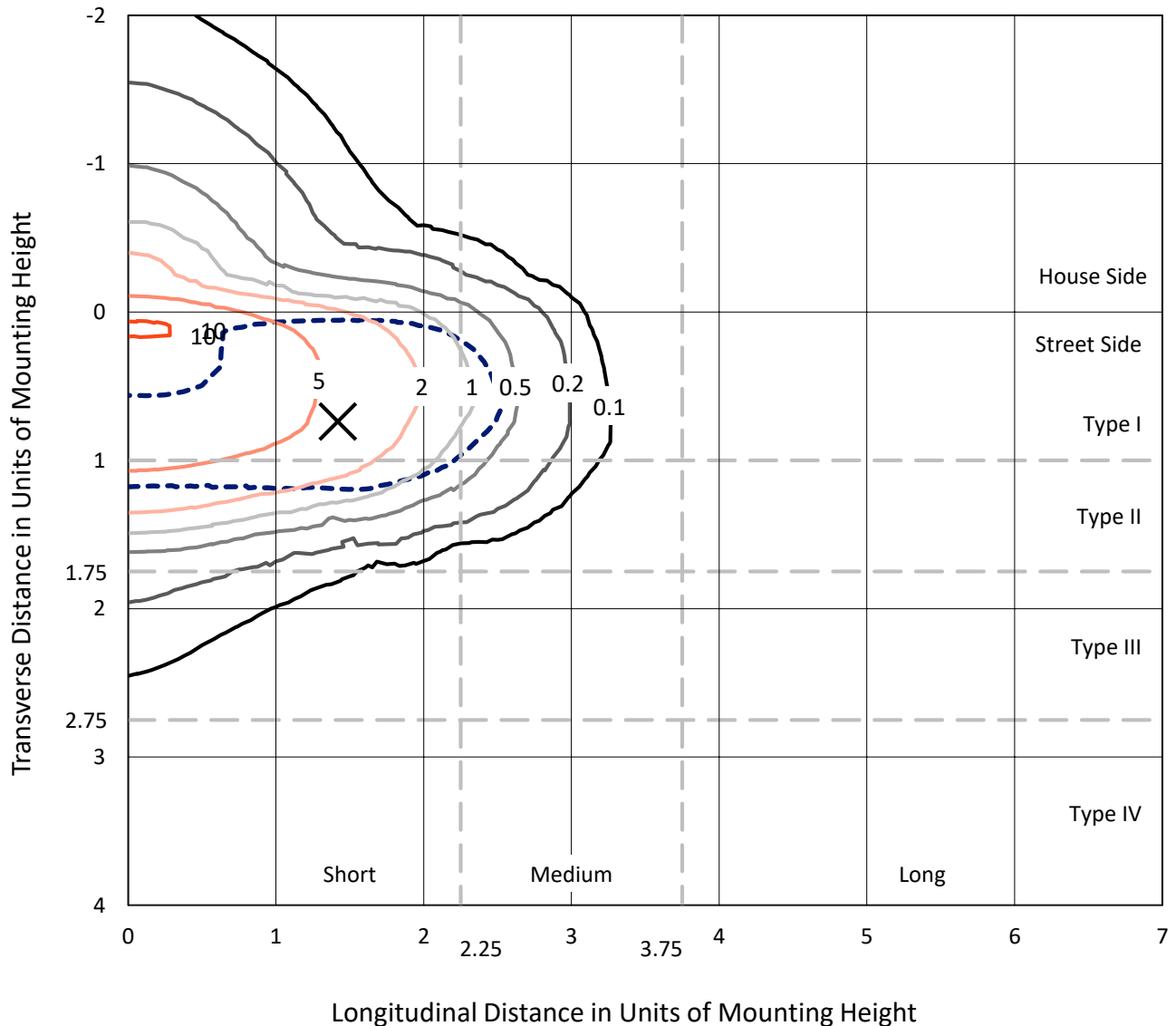
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P270576
 CATALOG NUMBER: NAV-AF-05-D-UNV-AFL-7027-800

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

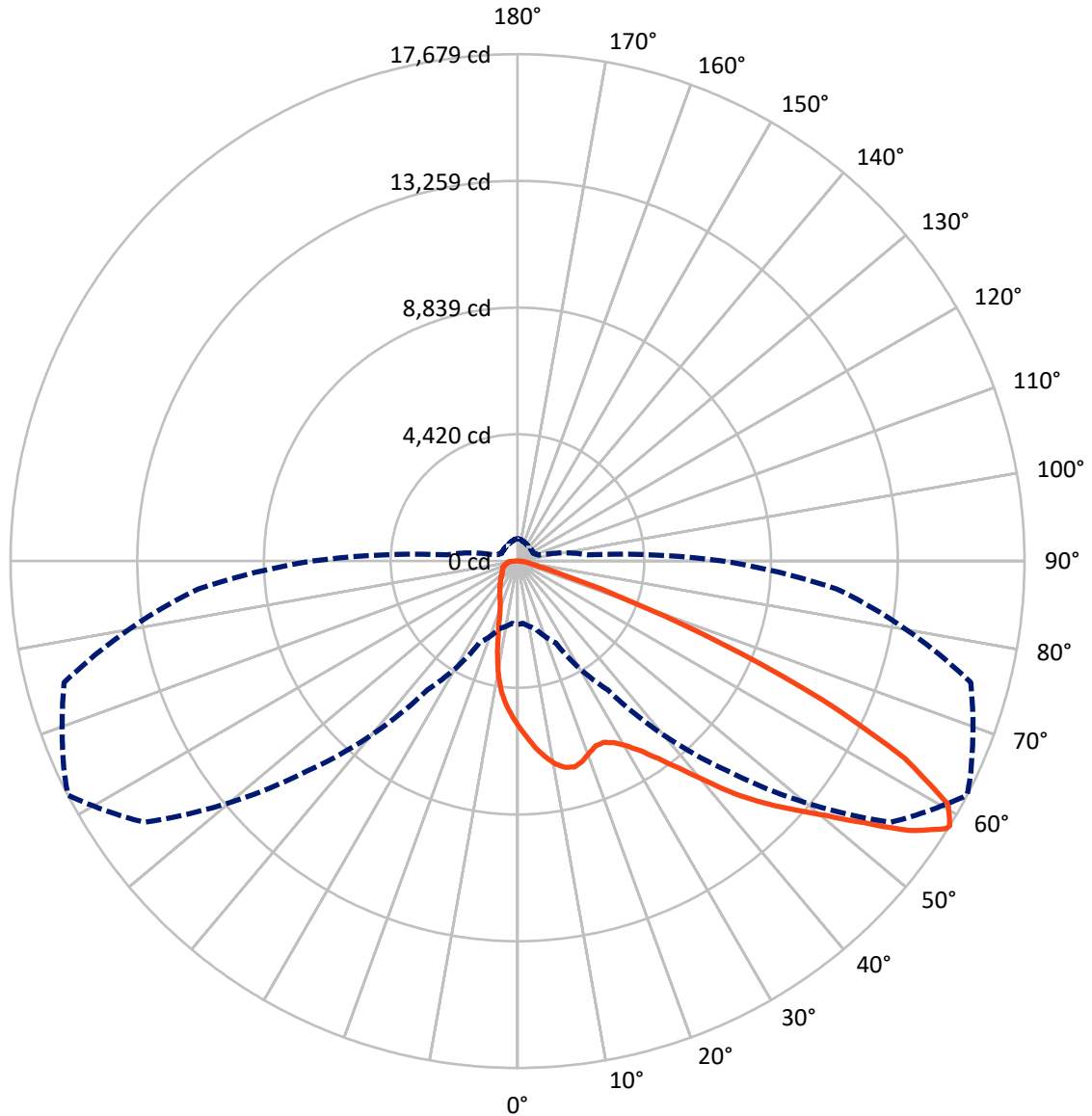


Based on 25 foot mounting height. Maximum calculated value = 10.8 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P270576

CATALOG NUMBER: NAV-AF-05-D-UNV-AFL-7027-800

Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

REPORT NUMBER: P270576

CATALOG NUMBER: NAV-AF-05-D-UNV-AFL-7027-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3320.4	0.0	3320.4
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	18305.6	0.0	18305.6
	% Fixture	84.6	0.0	84.6
Total	Lumens	21626.0	0.0	21626.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	516.1	2.4
10°-20°	1302.5	6.0
20°-30°	2110.9	9.8
30°-40°	3370.2	15.6
40°-50°	4902.0	22.7
50°-60°	5129.5	23.7
60°-70°	3127.1	14.5
70°-80°	874.5	4.0
80°-90°	293.2	1.4
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°	21626.0	100.0
0°-180°	21626.0	100.0



REPORT NUMBER: P270576

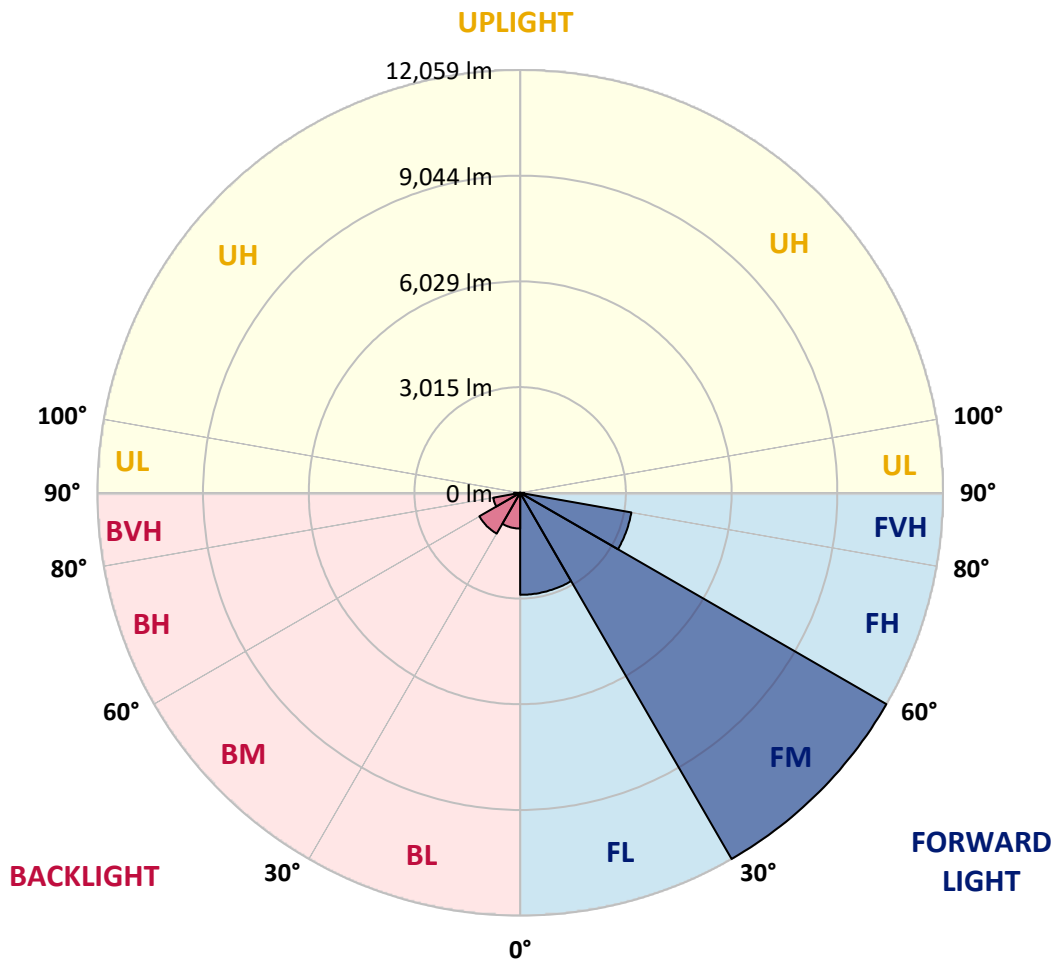
CATALOG NUMBER: NAV-AF-05-D-UNV-AFL-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2908.8	13.5			
FM	(30°-60°)	12058.9	55.8			
FH	(60°-80°)	3220.0	14.9			G2/5000
FVH	(80°-90°)	117.9	0.5			G2/225
BL	(0°-30°)	1020.7	4.7	B3/2500		
BM	(30°-60°)	1342.8	6.2	B2/2500		
BH	(60°-80°)	781.7	3.6	B2/1000		G2/1000
BVH	(80°-90°)	175.2	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G2

Type II Short





REPORT NUMBER: P270576

CATALOG NUMBER: NAV-AF-05-D-UNV-AFL-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	5773.9	5773.9	5773.9	5773.9	5773.9	5773.9	5773.9	5773.9	5773.9	5773.9	5773.9
2.5°	6553.9	6549.8	6494.3	6457.8	6414.6	6314.6	6214.7	6140.3	6102.5	5957.7	5817.2
5°	7095.8	7079.6	7048.6	7009.4	6952.6	6826.8	6668.7	6532.2	6478.1	6221.4	5963.2
7.5°	6809.3	6834.9	6931.0	7039.1	7152.7	7160.7	7048.6	6886.3	6826.8	6483.5	6105.2
10°	6015.9	6005.1	6125.5	6336.3	6710.7	7081.0	7266.1	7186.4	7124.2	6732.3	6247.1
12.5°	5775.4	5772.7	5792.9	5847.0	6082.2	6590.3	7210.8	7383.7	7362.1	6995.8	6398.4
15°	5848.3	5851.0	5849.8	5856.4	5921.3	6163.2	6901.1	7450.0	7517.6	7256.7	6552.4
17.5°	6082.2	6072.7	6043.0	6010.5	6020.0	6106.5	6567.4	7336.5	7539.1	7489.2	6682.2
20°	6443.1	6443.1	6363.2	6272.8	6213.2	6232.3	6428.1	7141.7	7439.1	7686.4	6779.6
22.5°	6895.7	6902.5	6785.0	6620.1	6485.0	6433.7	6508.0	6997.2	7317.6	7869.0	6866.0
25°	7458.1	7456.7	7285.1	7048.6	6834.9	6712.0	6710.7	7003.9	7279.7	8082.5	6956.7
27.5°	8154.2	8090.7	7890.6	7554.0	7252.6	7064.8	6979.7	7174.3	7359.5	8344.7	7078.3
30°	8939.5	8874.5	8612.3	8179.8	7771.6	7497.3	7356.7	7468.9	7602.6	8678.5	7262.1
32.5°	9716.5	9731.5	9423.3	8935.4	8410.9	8024.4	7816.2	7885.1	7978.4	9086.7	7510.8
35°	10854.6	10853.2	10450.5	9840.9	9217.9	8682.6	8419.0	8455.6	8540.6	9662.4	7859.5
37.5°	11703.4	11690.0	11430.5	10891.1	10189.7	9547.6	9166.5	9171.9	9244.8	10385.7	8319.1
40°	11790.0	11787.2	11785.9	11708.8	11229.1	10623.4	10146.4	10047.7	10077.5	11153.4	8807.0
42.5°	11129.0	11227.6	11511.5	11946.6	12080.4	11762.9	11311.5	11091.2	11026.2	12034.6	9323.2
45°	10186.9	10236.9	10734.3	11712.9	12509.0	12833.4	12494.0	12029.2	11918.4	12891.4	9743.6
47.5°	9749.0	9727.3	10015.3	11081.8	12467.0	13684.8	13709.2	12946.9	12758.9	13630.8	10101.8
50°	8809.7	8781.3	9144.8	10153.2	12010.2	14107.9	14956.7	13947.1	13599.7	14333.6	10426.2
52.5°	6937.7	6910.8	7398.6	8697.5	10988.4	13949.8	16008.2	15174.3	14582.2	15010.8	10728.8
55°	4514.3	4516.9	4982.0	6321.5	8892.1	13027.9	16501.5	16592.1	15928.4	15687.9	10973.5
57.5°	2485.6	2462.7	2793.6	3616.8	6117.3	10934.3	16090.7	17614.0	17267.8	16269.1	11150.7
58°	2209.8	2182.8	2438.3	3147.8	5484.7	10343.8	15883.9	17678.9	17439.5	16365.1	11176.4
60°	1574.5	1528.6	1489.5	1774.6	3160.0	7458.1	14505.2	17258.4	17489.6	16557.0	11152.0
62.5°	1327.2	1274.5	1134.0	1123.2	1488.1	3647.9	11470.9	15156.7	15804.2	16115.1	10760.0
65°	1232.7	1180.0	994.8	928.6	1009.7	1574.5	7093.1	11703.4	12568.5	14578.2	9773.3
67.5°	1165.1	1102.8	904.2	817.6	833.9	942.1	3010.0	7654.1	8657.0	11368.2	7840.5
70°	1104.2	1035.3	832.5	732.6	719.1	716.4	1175.9	3996.6	4963.0	7439.1	5252.3
72.5°	1035.3	967.7	769.0	662.3	632.5	581.2	706.8	1651.7	2263.9	3646.6	2407.2
75°	935.2	879.9	698.8	604.2	552.7	471.7	521.7	792.0	975.9	1396.1	1117.9
77.5°	823.0	778.6	627.1	555.5	486.6	385.3	398.7	536.6	602.9	786.6	647.4
80°	582.6	598.8	547.3	489.2	428.4	310.9	306.9	393.3	432.5	528.5	435.1
82.5°	401.5	413.6	446.0	386.5	345.9	242.0	225.7	273.1	293.2	319.0	210.8
85°	286.5	278.5	309.6	277.0	254.1	154.1	144.5	173.1	185.2	194.7	101.4
87.5°	174.4	173.1	178.5	143.3	132.5	78.4	71.7	82.5	87.9	85.2	48.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P270576

CATALOG NUMBER: NAV-AF-05-D-UNV-AFL-7027-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5773.9	5773.9	5773.9	5773.9	5773.9	5773.9	5773.9	5773.9	5773.9	5773.9	5773.9
2.5°	5764.6	5698.3	5553.7	5437.4	5311.8	5215.7	5119.8	5065.7	5006.3	4972.5	4968.4
5°	5828.1	5692.9	5384.7	5098.2	4803.5	4538.6	4279.2	4087.2	3930.4	3841.2	3835.9
7.5°	5898.4	5686.1	5210.3	4714.3	4190.0	3668.1	3207.3	2881.7	2672.1	2574.8	2568.1
10°	5952.3	5657.7	4998.2	4226.4	3395.2	2705.9	2286.8	2094.9	2031.4	2015.2	2012.6
12.5°	6017.2	5637.5	4730.6	3600.6	2595.1	2059.9	1932.8	1920.5	1934.1	1942.2	1943.7
15°	6078.1	5598.2	4369.6	2907.3	2031.4	1840.8	1843.6	1869.3	1896.3	1908.4	1909.7
17.5°	6106.5	5502.3	3895.3	2290.9	1777.3	1742.3	1773.3	1807.1	1831.5	1840.8	1840.8
20°	6106.5	5348.1	3345.2	1855.7	1644.8	1651.7	1689.5	1715.1	1720.6	1712.4	1708.3
22.5°	6080.7	5157.7	2810.0	1619.3	1536.8	1562.4	1592.2	1574.5	1511.0	1462.4	1453.0
25°	6057.8	4932.0	2295.0	1474.6	1442.1	1475.9	1463.8	1343.4	1246.2	1196.2	1188.1
27.5°	6020.0	4658.9	1865.2	1355.6	1350.2	1377.3	1257.0	1140.8	1092.1	1065.0	1059.6
30°	6010.5	4363.0	1561.1	1250.3	1259.7	1221.9	1084.0	1046.2	1035.3	1020.5	1013.6
32.5°	6041.6	4066.9	1370.5	1163.8	1173.1	1048.9	996.1	1001.5	1000.2	981.3	974.5
35°	6126.8	3779.0	1248.9	1085.3	1058.4	939.4	946.2	962.4	962.4	939.4	931.3
37.5°	6275.4	3511.5	1171.7	1019.0	925.9	882.6	900.1	921.8	921.8	905.6	898.8
40°	6433.7	3250.5	1113.7	966.3	842.0	843.4	860.9	877.1	883.9	886.6	881.2
42.5°	6576.9	2980.2	1051.6	909.7	804.3	813.7	821.8	833.9	862.4	881.2	878.5
45°	6660.7	2708.6	984.0	839.3	778.6	782.6	779.9	801.5	835.2	863.7	863.7
47.5°	6737.6	2485.6	928.6	769.0	752.8	752.8	744.8	766.3	797.4	831.2	833.9
50°	6810.7	2341.0	889.3	715.1	720.4	716.4	713.7	733.9	775.9	816.4	823.0
52.5°	6885.0	2292.3	854.2	675.7	686.7	681.3	683.9	712.3	759.5	801.5	808.2
55°	6989.1	2323.3	817.6	648.8	654.1	652.8	663.7	696.0	738.0	779.9	782.6
57.5°	7117.5	2436.9	786.6	628.5	623.1	631.1	648.8	679.8	720.4	770.3	774.5
58°	7143.1	2464.0	781.3	623.1	616.3	628.5	646.1	675.7	717.7	770.3	774.5
60°	7182.4	2559.9	767.7	612.3	593.3	615.0	636.5	666.4	712.3	777.2	785.3
62.5°	6993.1	2578.9	763.6	600.1	569.0	596.0	621.7	655.6	706.8	800.1	817.6
65°	6337.6	2384.2	735.3	579.9	548.8	581.2	608.2	647.4	723.0	869.1	877.1
67.5°	5087.5	1980.0	666.4	548.8	525.8	563.5	597.5	647.4	729.9	879.9	885.3
70°	3497.9	1488.1	579.9	515.0	498.6	541.9	593.3	662.3	706.8	832.5	816.4
72.5°	1827.3	1035.3	508.3	475.7	466.3	523.1	632.5	647.4	679.8	777.2	761.0
75°	920.5	704.2	447.4	431.1	429.7	516.3	708.3	623.1	651.5	731.2	766.3
77.5°	543.4	551.5	398.7	389.2	396.1	504.2	709.7	598.8	619.0	673.1	710.9
80°	371.7	455.5	360.8	358.2	363.5	463.5	654.1	569.0	581.2	636.5	677.1
82.5°	209.5	251.3	316.3	333.8	331.1	379.9	564.9	517.7	532.5	752.8	796.1
85°	101.4	151.4	264.9	312.3	282.4	252.8	459.6	459.6	463.5	539.3	546.0
87.5°	37.9	67.6	178.5	247.4	197.4	151.4	312.3	325.7	362.2	373.1	381.2
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)