

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: P197125

Luminaire Tested: **NAV-AF-01-D-UNV-SL4-8030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197125
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24285)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-SL4-8030-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4062 lumens
Efficiency: N/A
Efficacy: 68.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B0 - U0 - G2

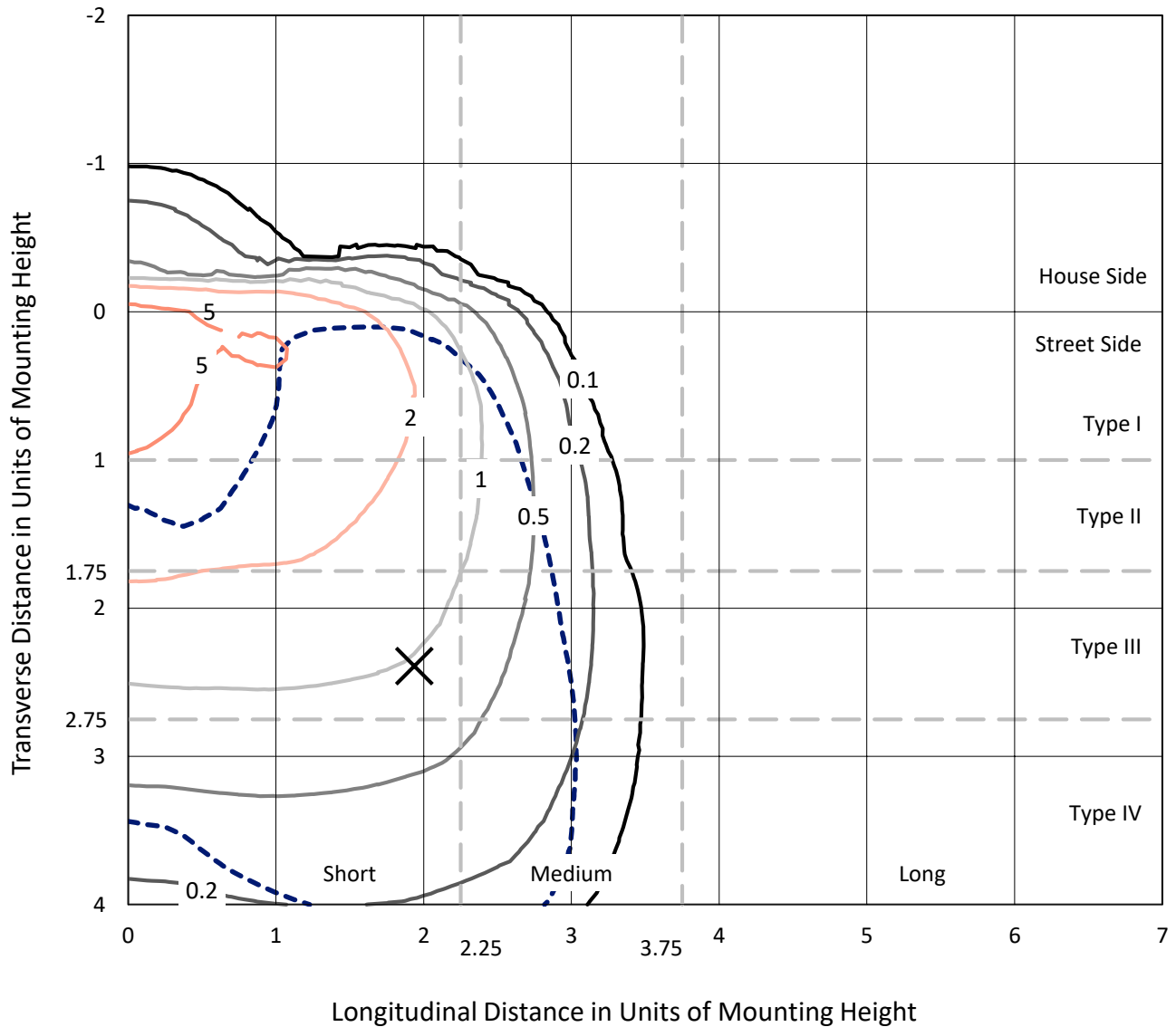
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

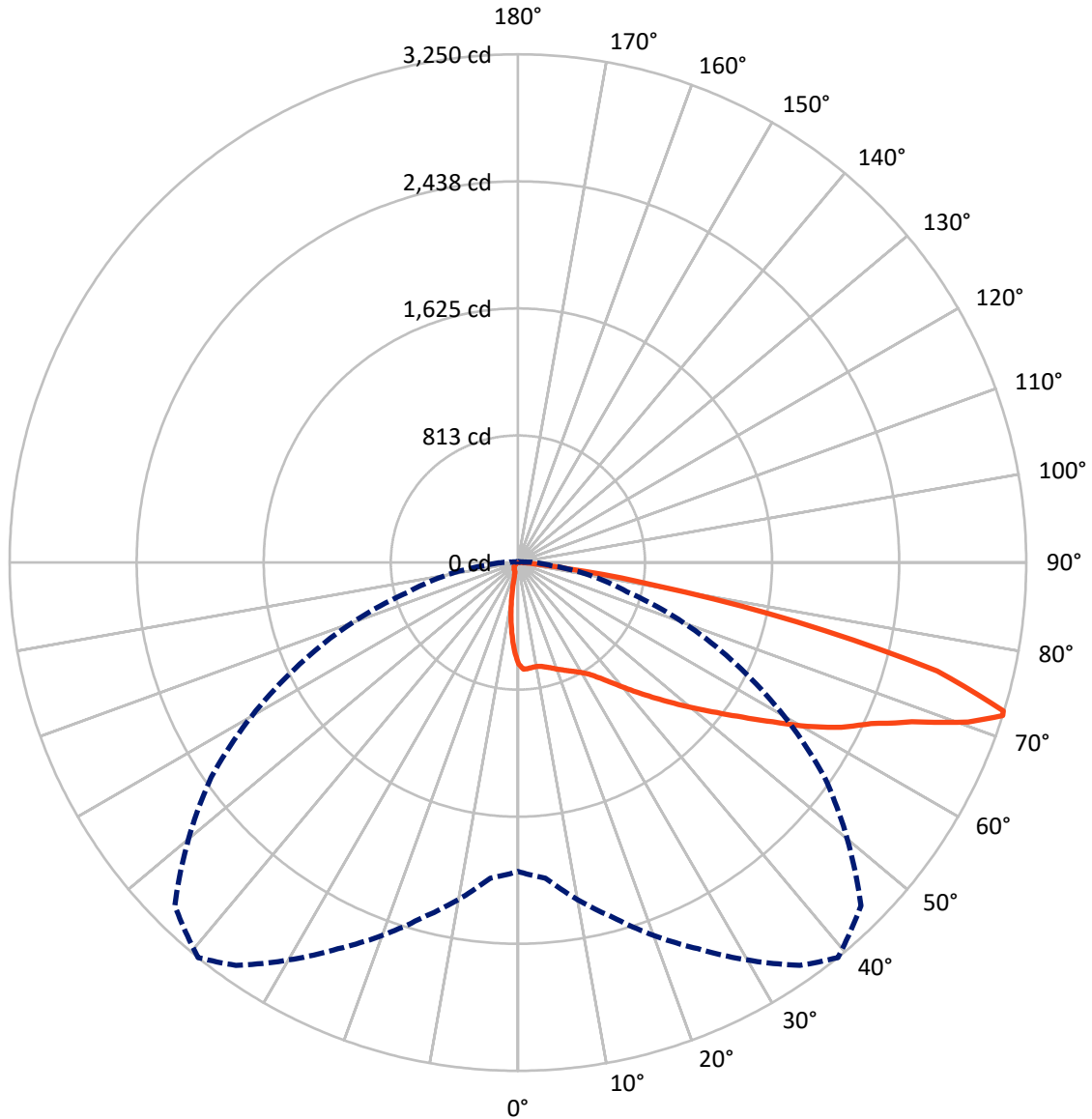
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	266.2	0.0	266.2
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	3795.8	0.0	3795.8
	% Fixture	93.4	0.0	93.4
Total	Lumens	4062.0	0.0	4062.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	1.3
10°-20°	128.0	3.2
20°-30°	212.6	5.2
30°-40°	338.9	8.3
40°-50°	559.4	13.8
50°-60°	844.8	20.8
60°-70°	1100.4	27.1
70°-80°	743.6	18.3
80°-90°	81.4	2.0
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°	4062.0	100.0
0°-180°	4062.0	100.0



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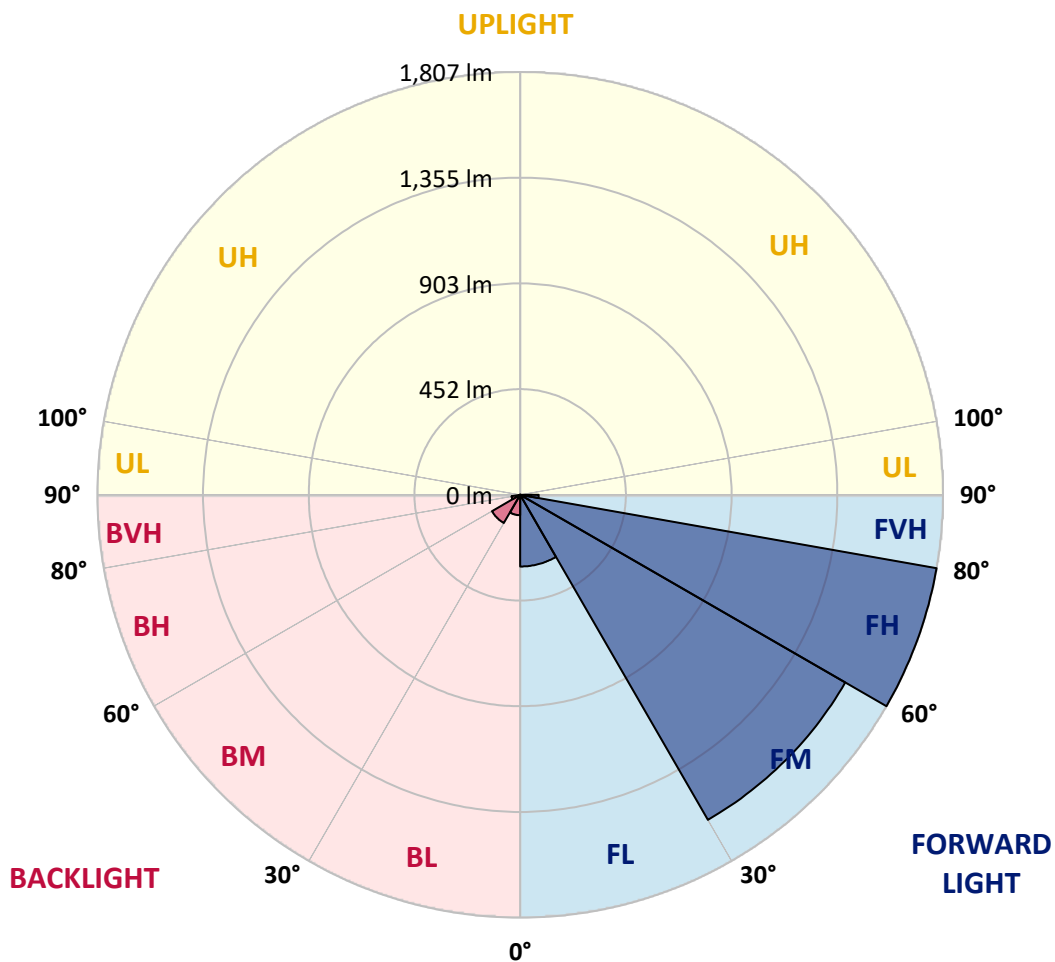
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	306.4	7.5			
FM	(30°-60°)	1603.7	39.5			
FH	(60°-80°)	1806.6	44.5			G2/5000
FVH	(80°-90°)	79.1	1.9			G1/100
BL	(0°-30°)	87.2	2.1	B0/110		
BM	(30°-60°)	139.3	3.4	B0/220		
BH	(60°-80°)	37.4	0.9	B0/110		G0/110
BVH	(80°-90°)	2.3	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	650.1	650.1	650.1	650.1	650.1	650.1	650.1	650.1	650.1	650.1	650.1
2.5°	692.3	693.6	692.0	689.1	685.0	682.4	678.9	671.2	661.6	653.3	643.8
5°	697.7	698.4	696.5	691.0	684.6	681.1	676.7	668.4	658.5	647.0	629.7
7.5°	699.3	699.0	696.8	690.1	680.2	675.7	668.0	657.8	647.6	637.1	617.6
10°	698.7	698.7	697.1	690.7	679.5	675.4	666.8	655.9	643.1	632.6	611.8
12.5°	696.5	697.7	696.8	693.3	685.0	681.8	674.1	663.2	651.1	640.3	618.2
15°	699.3	701.2	703.2	701.9	697.1	694.2	687.2	676.0	666.1	654.6	631.0
17.5°	710.8	715.0	719.4	719.8	714.7	709.5	701.6	690.1	680.5	669.9	644.4
20°	732.5	735.7	744.0	745.6	735.4	728.1	716.9	703.5	693.9	685.0	656.9
22.5°	764.8	768.3	775.0	772.8	755.5	746.9	732.9	717.5	707.6	702.5	671.2
25°	813.6	814.6	816.2	806.3	777.9	768.3	751.1	733.8	725.8	725.2	691.7
27.5°	871.1	872.4	865.4	843.3	802.8	790.3	770.9	755.2	751.4	756.2	717.5
30°	936.9	937.2	917.7	882.0	831.5	817.8	797.7	780.4	783.9	795.8	750.7
32.5°	1004.3	1001.1	974.3	927.6	870.8	854.2	837.0	819.7	829.9	853.9	799.3
35°	1065.9	1064.6	1033.0	978.7	921.9	907.2	894.8	876.6	893.2	932.1	865.4
37.5°	1127.5	1126.6	1090.5	1034.0	984.8	974.3	965.0	951.0	978.1	1035.3	953.8
40°	1195.6	1194.0	1149.6	1095.3	1057.9	1052.2	1046.8	1040.7	1087.0	1166.5	1064.0
42.5°	1279.5	1272.5	1212.2	1162.0	1138.4	1140.0	1140.3	1146.4	1218.9	1322.7	1194.0
45°	1376.0	1360.3	1275.1	1233.6	1226.9	1236.4	1246.0	1271.2	1372.5	1502.4	1337.7
47.5°	1469.5	1444.3	1347.6	1310.5	1324.2	1344.0	1367.0	1416.2	1544.9	1690.5	1467.9
50°	1550.0	1524.1	1419.4	1388.8	1432.5	1461.9	1502.8	1577.2	1726.9	1849.5	1550.0
52.5°	1613.2	1592.8	1495.4	1475.0	1552.6	1592.8	1657.0	1754.7	1898.7	1954.3	1607.5
55°	1659.9	1649.6	1568.2	1571.1	1686.0	1744.2	1824.0	1934.5	2043.7	2035.7	1650.6
57.5°	1712.5	1704.6	1644.5	1684.4	1846.7	1921.7	2014.0	2102.8	2149.1	2101.2	1692.8
60°	1766.5	1769.1	1737.1	1821.8	2045.3	2128.3	2208.8	2230.8	2239.4	2167.6	1737.1
62.5°	1807.4	1818.2	1821.1	1969.9	2249.0	2319.9	2354.7	2339.1	2337.2	2256.7	1733.6
65°	1854.3	1882.8	1930.0	2132.5	2434.2	2480.8	2505.8	2528.4	2480.5	2283.2	1563.1
67.5°	1935.4	1980.1	2086.5	2331.7	2648.2	2717.2	2787.7	2763.8	2501.9	2014.0	1190.8
70°	2044.6	2099.3	2287.0	2592.0	2938.4	3054.0	3113.1	2744.9	2124.2	1391.6	628.1
72°	1975.7	2025.2	2349.0	2724.8	3144.1	3250.1	3102.3	2394.3	1539.8	721.4	210.4
72.5°	1908.6	1959.7	2329.2	2723.2	3164.5	3245.6	3031.7	2256.0	1362.6	561.4	145.0
75°	1324.2	1388.8	1996.8	2448.0	2857.7	2768.6	2319.6	1366.1	493.7	96.4	47.9
77.5°	684.6	734.5	1211.2	1729.8	1991.6	1824.0	1370.9	592.7	136.7	51.1	31.6
80°	424.4	449.0	566.5	852.3	1034.6	905.0	604.8	239.5	87.5	30.3	25.2
82.5°	219.7	238.5	356.7	343.9	382.2	317.7	223.2	200.5	54.0	18.8	25.9
85°	72.2	76.6	219.1	228.6	163.5	109.8	99.0	191.3	15.6	12.1	22.0
87.5°	9.6	11.2	77.0	130.9	80.5	49.8	59.4	67.4	5.4	6.7	6.1
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°	650.1	650.1	650.1	650.1	650.1	650.1	650.1	650.1	650.1	650.1	650.1
2.5°	637.4	633.2	620.1	607.0	592.0	578.3	567.4	560.4	563.6	553.1	554.7
5°	619.2	608.6	579.9	548.9	515.4	484.1	459.2	440.7	437.2	421.2	421.8
7.5°	601.6	584.4	537.7	486.7	431.1	386.1	345.2	309.4	296.7	283.6	275.9
10°	592.0	568.4	502.3	427.9	349.7	283.6	226.1	181.1	162.2	148.5	141.8
12.5°	594.9	563.6	475.8	374.6	271.7	187.8	127.7	94.8	83.3	77.0	74.7
15°	604.5	564.6	451.8	322.5	197.7	113.7	75.0	64.2	63.2	62.9	62.6
17.5°	613.4	565.5	426.6	268.2	132.2	72.5	60.4	59.4	59.4	59.4	59.4
20°	622.7	565.8	398.8	211.4	86.9	59.4	56.8	56.2	56.8	56.8	56.8
22.5°	633.5	568.1	372.0	156.2	64.2	55.9	54.3	54.0	54.3	54.3	54.0
25°	647.0	572.9	343.0	111.8	58.1	53.6	52.1	51.7	52.1	51.7	51.7
27.5°	664.8	579.3	309.1	80.2	55.6	51.4	49.8	49.8	49.8	49.5	49.5
30°	687.8	586.9	263.8	63.2	53.0	49.2	47.9	47.9	47.6	47.3	47.3
32.5°	720.7	599.4	214.3	57.2	50.1	46.3	45.0	45.3	45.0	44.7	44.4
35°	767.3	618.9	165.4	54.0	47.3	43.4	42.2	42.2	42.2	41.5	41.5
37.5°	833.4	648.6	123.9	50.8	44.4	40.6	39.0	39.0	38.6	38.0	38.3
40°	915.2	685.9	89.7	47.9	41.5	37.4	36.1	35.4	34.8	34.2	34.2
42.5°	1013.5	722.3	67.4	45.0	38.6	34.8	33.2	32.6	31.3	30.7	30.3
45°	1123.7	761.0	55.9	41.5	35.4	31.9	30.7	29.4	27.8	26.8	26.5
47.5°	1216.6	784.6	49.8	38.0	32.3	29.1	27.8	25.9	23.9	23.3	23.3
50°	1272.5	774.7	44.7	34.5	29.1	26.2	24.6	22.0	20.8	20.1	19.8
52.5°	1303.8	745.3	40.6	31.6	26.2	23.0	20.8	18.5	17.9	17.2	17.2
55°	1325.2	702.8	36.1	28.7	23.6	20.1	17.6	16.0	15.3	15.0	14.7
57.5°	1345.6	651.1	31.9	26.2	21.1	17.9	15.0	14.4	13.1	12.8	12.8
60°	1351.7	579.9	28.1	23.3	18.8	15.6	13.1	12.1	10.9	10.5	10.5
62.5°	1274.4	461.4	24.9	19.8	16.6	13.4	11.5	10.2	8.9	8.9	8.9
65°	1065.0	313.3	21.4	17.2	14.7	11.5	9.9	8.3	7.7	7.7	7.7
67.5°	741.8	174.7	18.2	14.7	12.5	9.6	8.3	7.0	6.7	7.0	7.0
70°	334.3	69.3	15.3	12.1	10.2	8.0	7.0	6.1	6.7	6.7	6.7
72°	100.3	37.0	12.8	9.9	8.3	7.0	6.1	5.7	6.4	6.7	6.7
72.5°	74.4	33.2	12.1	9.6	8.3	6.7	5.7	5.7	6.4	6.7	6.7
75°	38.3	22.7	9.3	7.0	6.1	5.4	4.8	5.4	6.4	6.4	6.4
77.5°	30.0	18.5	7.7	5.4	5.1	4.8	4.5	5.1	5.7	5.7	5.7
80°	28.1	12.1	6.1	5.1	4.5	4.2	4.2	4.5	5.1	5.4	5.4
82.5°	28.4	9.9	5.4	4.8	4.2	3.8	3.8	4.2	4.8	5.1	5.1
85°	18.2	6.7	4.8	4.2	3.8	3.5	3.5	3.8	4.5	4.8	4.8
87.5°	6.1	5.1	4.2	3.8	3.2	3.2	3.2	3.2	3.8	4.2	4.5
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)