

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: P197023

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-8030-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197023
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24258)
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-SL2-8030-800-HSS
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3285 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 44
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

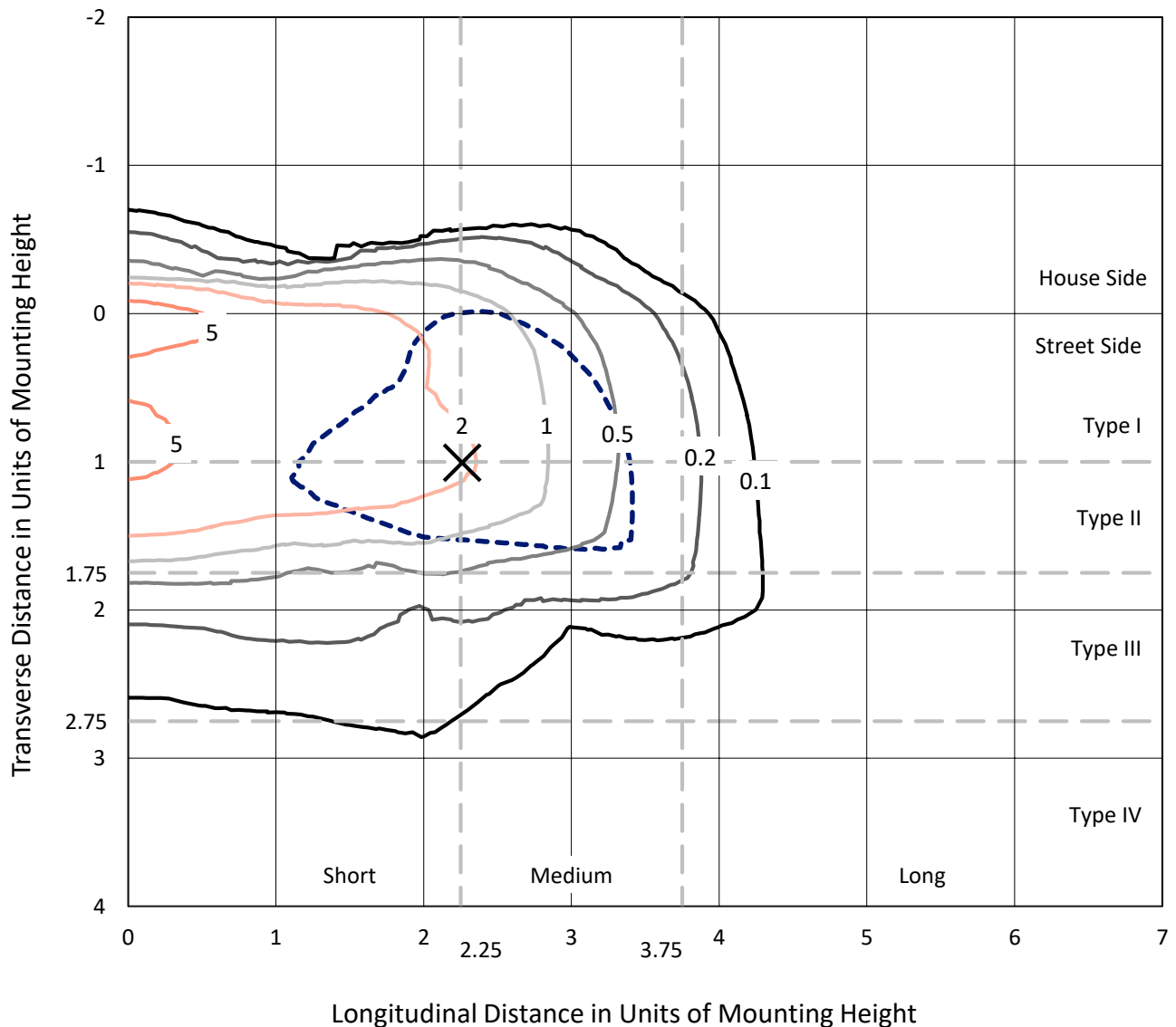


REPORT NUMBER: P197023

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-8030-800-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

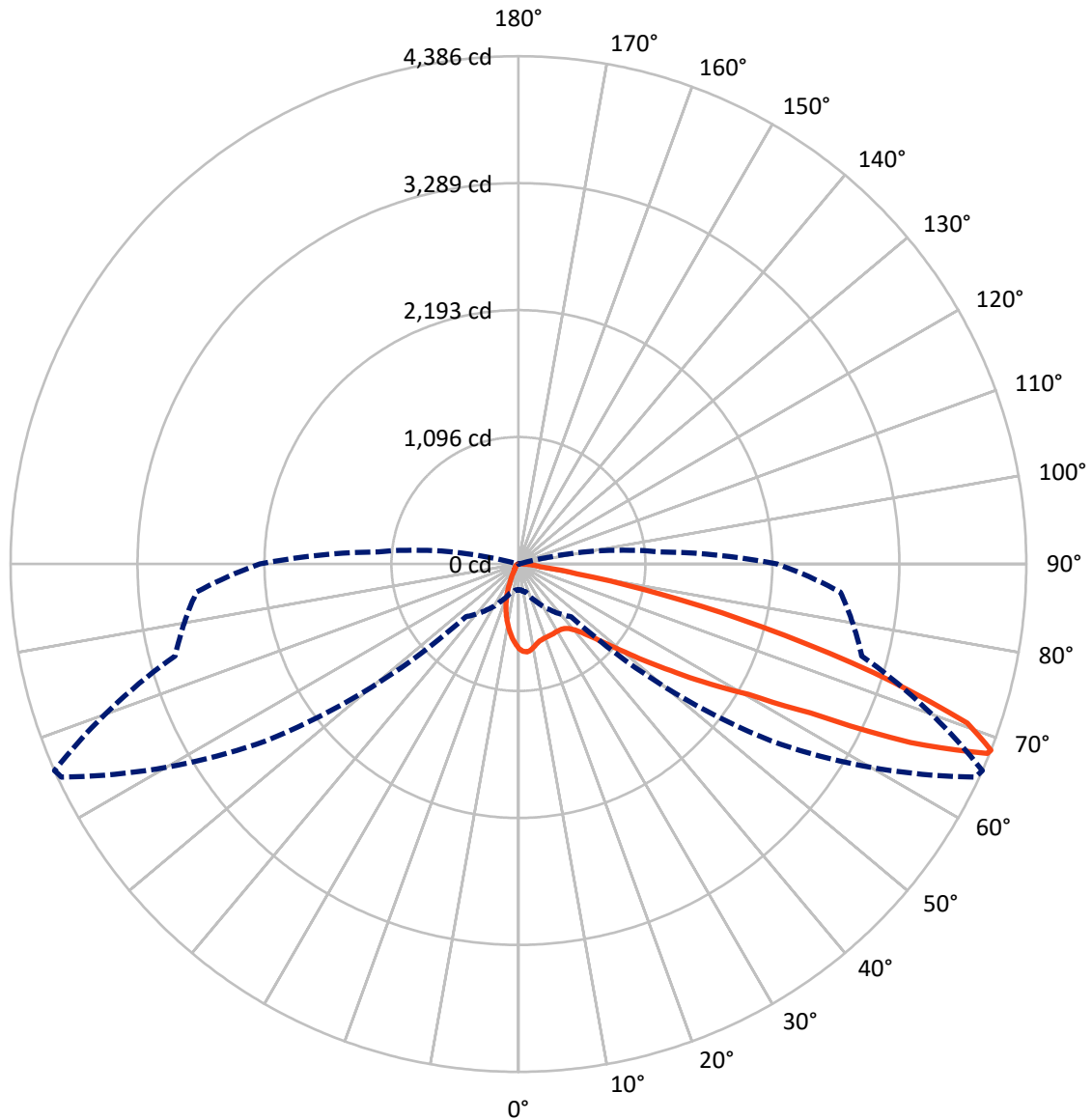


Based on 10 foot mounting height. Maximum calculated value = 7.3 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P197023

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-8030-800-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P197023

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-8030-800-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	332.7	0.0	332.7
	% Fixture	10.1	0.0	10.1
Street Side	Lumens	2952.3	0.0	2952.3
	% Fixture	89.9	0.0	89.9
Total	Lumens	3285.0	0.0	3285.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.0	1.8
10°-20°	129.1	3.9
20°-30°	187.1	5.7
30°-40°	286.4	8.7
40°-50°	489.8	14.9
50°-60°	766.2	23.3
60°-70°	882.2	26.9
70°-80°	441.5	13.4
80°-90°	42.8	1.3
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°	3285.0	100.0
0°-180°	3285.0	100.0



REPORT NUMBER: P197023

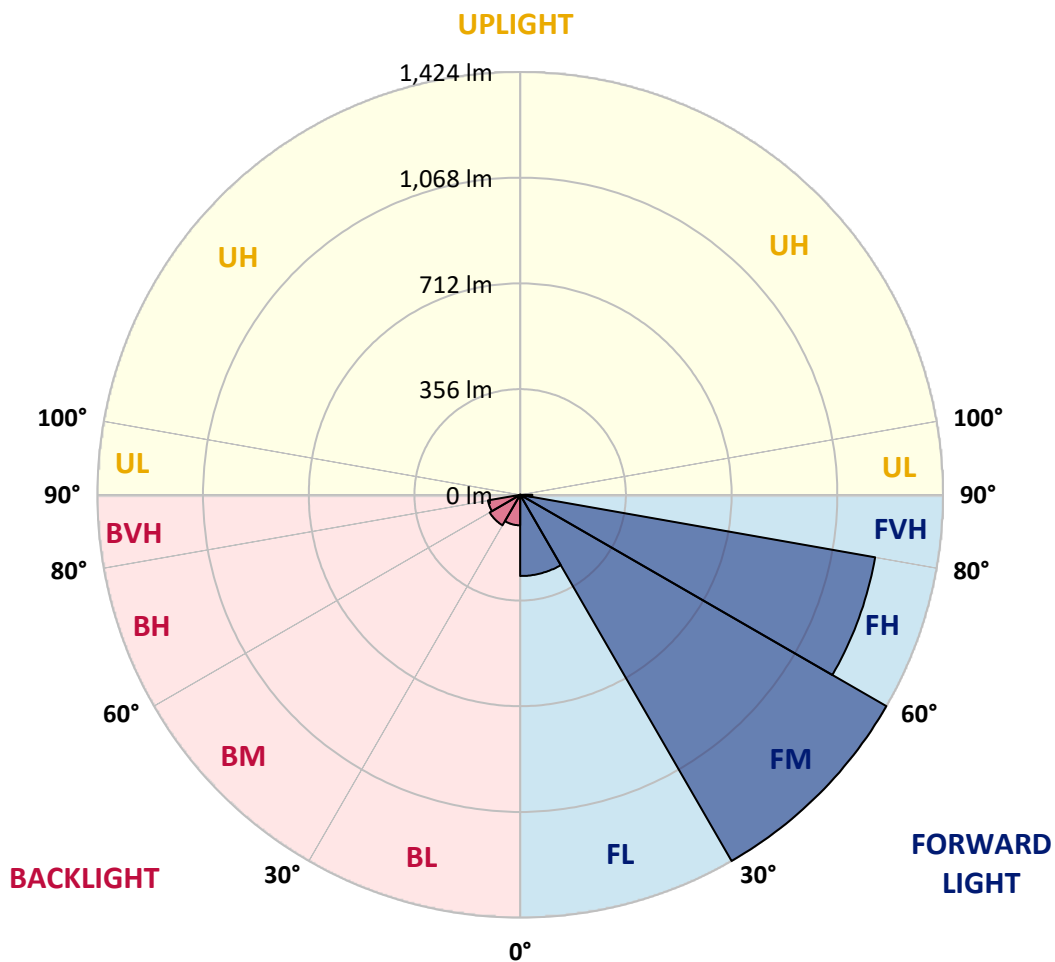
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	273.5	8.3			
FM (30°-60°)	1423.9	43.3			
FH (60°-80°)	1213.8	36.9			G1/1800
FVH (80°-90°)	41.1	1.3			G1/100
BL (0°-30°)	102.7	3.1	B0/110		
BM (30°-60°)	118.5	3.6	B0/220		
BH (60°-80°)	109.9	3.3	B0/110		G0/110
BVH (80°-90°)	1.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Medium





REPORT NUMBER: P197023

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-8030-800-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	731.9	731.9	731.9	731.9	731.9	731.9	731.9	731.9	731.9	731.9	731.9
2.5°	769.8	770.3	770.0	770.8	770.3	766.4	762.3	753.5	754.3	743.0	730.3
5°	715.6	720.0	724.4	728.8	739.3	748.6	759.7	762.3	762.3	752.5	733.9
7.5°	660.4	660.7	665.6	671.5	685.7	702.7	728.5	751.7	752.2	754.8	734.4
10°	618.9	620.2	623.6	630.0	644.2	660.9	689.8	726.2	729.0	748.1	729.3
12.5°	586.7	588.2	591.8	599.3	612.2	629.5	659.9	701.4	705.3	741.7	727.7
15°	561.9	564.0	566.8	574.3	588.2	606.5	639.8	684.9	689.6	739.1	732.6
17.5°	551.6	551.6	551.4	556.5	570.4	589.0	623.8	676.2	682.1	741.2	740.9
20°	556.0	555.2	549.8	548.5	557.0	575.6	611.2	670.5	677.2	745.0	751.0
22.5°	579.2	577.7	565.5	555.5	552.9	565.3	602.7	666.6	674.6	753.0	764.4
25°	628.5	623.8	607.1	584.4	564.0	562.7	596.7	664.6	673.1	762.3	779.1
27.5°	692.4	691.1	664.3	633.9	594.7	571.2	594.9	663.0	671.5	769.0	790.9
30°	771.8	772.4	741.4	701.7	642.4	595.2	600.6	662.2	671.0	769.5	796.1
32.5°	853.8	854.4	828.6	786.0	707.6	636.5	616.6	665.8	673.8	767.5	795.8
35°	932.8	933.5	918.1	883.8	794.8	693.7	646.8	678.2	683.9	768.7	795.3
37.5°	1032.6	1035.7	1016.6	984.6	904.1	777.8	696.0	703.2	707.9	779.3	799.2
40°	1202.8	1198.6	1144.0	1089.8	1022.8	880.1	767.2	746.3	747.9	806.7	813.9
42.5°	1401.1	1395.9	1302.3	1208.9	1144.7	1003.7	858.2	812.3	812.1	852.6	845.9
45°	1571.8	1568.7	1470.2	1345.6	1279.9	1140.1	970.4	907.5	904.4	932.0	904.1
47.5°	1693.0	1690.4	1615.9	1491.1	1436.1	1290.2	1110.4	1037.2	1030.8	1035.9	998.8
50°	1704.9	1702.0	1676.0	1595.8	1618.7	1510.4	1283.5	1207.1	1198.9	1190.9	1141.9
52.5°	1594.0	1593.7	1607.4	1602.2	1746.6	1793.8	1495.7	1417.3	1407.5	1387.1	1338.4
55°	1367.3	1366.0	1417.8	1493.1	1743.8	2086.3	1819.4	1667.5	1654.6	1613.8	1549.9
57.5°	999.0	992.3	1100.6	1260.3	1621.3	2214.2	2333.3	1978.2	1956.8	1827.6	1729.1
60°	551.6	554.2	693.4	882.5	1331.2	2188.9	2806.3	2340.5	2284.3	2012.0	1912.7
62.5°	309.2	315.6	419.3	573.5	848.7	1983.9	3060.0	2964.1	2828.7	2227.1	2144.8
65°	233.9	237.8	289.9	442.5	535.1	1386.4	3100.5	3836.0	3719.2	2553.0	2514.3
67.5°	220.2	223.3	248.9	367.0	487.4	719.0	2795.7	4351.7	4366.4	2997.6	2800.6
68°	221.8	225.6	251.2	353.0	486.6	643.2	2665.7	4354.3	4385.5	3069.3	2790.8
70°	203.7	204.8	265.6	346.3	471.7	506.7	1928.4	4056.0	4111.9	3154.7	2533.4
72.5°	77.9	78.1	119.1	299.9	494.1	509.6	971.4	3205.7	3208.6	2745.4	1975.1
75°	40.5	34.0	37.4	93.9	471.9	496.7	487.4	2188.9	2175.2	1856.7	1210.2
77.5°	27.9	23.7	25.0	32.5	196.2	496.4	352.0	1258.7	1255.9	789.9	345.3
80°	15.7	13.7	15.0	27.3	68.9	466.0	328.0	541.0	509.8	138.7	56.0
82.5°	8.0	6.7	8.0	23.0	42.8	293.2	319.0	212.2	189.0	33.0	36.4
85°	2.1	2.1	3.9	16.0	26.6	96.2	286.0	153.2	137.7	14.4	25.8
87.5°	0.5	0.3	1.5	5.9	9.5	20.9	158.6	85.4	73.5	7.5	15.0
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: P197023

CATALOG NUMBER: NAV-AF-01-D-UNV-SL2-8030-800-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	731.9	731.9	731.9	731.9	731.9	731.9	731.9	731.9	731.9	731.9	731.9
2.5°	725.2	717.9	703.8	687.8	676.4	664.0	656.8	648.1	641.4	635.4	639.8
5°	722.6	708.7	677.2	641.9	612.2	583.8	562.7	542.6	527.4	517.8	521.7
7.5°	715.9	695.2	644.2	589.0	540.5	494.9	457.7	424.5	398.7	384.8	389.1
10°	704.5	675.4	606.8	530.2	462.4	397.9	342.7	293.2	255.8	238.3	242.4
12.5°	696.3	657.9	568.1	473.5	384.2	292.7	219.5	162.7	133.6	116.0	117.6
15°	692.7	644.2	532.0	413.6	298.9	188.0	118.6	85.9	75.8	72.2	72.5
17.5°	693.2	633.4	497.7	351.5	212.8	108.1	72.7	65.5	64.0	63.2	63.2
20°	694.5	622.5	462.1	286.8	136.2	69.6	60.6	58.3	57.5	56.5	56.7
22.5°	698.3	614.3	426.3	221.8	83.8	56.7	53.6	51.6	50.3	48.7	49.0
25°	704.3	608.1	390.9	159.6	59.1	49.5	46.7	43.8	41.5	39.7	40.0
27.5°	707.9	599.3	353.3	108.8	49.0	43.3	39.5	35.6	33.0	31.5	31.2
30°	705.3	585.1	310.5	71.4	43.3	37.4	32.8	28.4	25.8	24.5	24.5
32.5°	698.3	566.8	263.3	52.1	38.4	32.2	26.6	22.7	20.9	20.1	20.4
35°	690.3	547.7	213.0	44.1	34.6	27.3	21.7	18.6	17.8	17.5	17.5
37.5°	686.0	531.2	164.8	40.0	30.9	22.7	17.8	16.0	15.2	15.2	15.2
40°	690.9	518.6	122.0	36.9	27.3	18.8	15.0	13.7	13.4	13.4	13.4
42.5°	711.8	514.2	89.2	34.3	23.7	15.7	12.9	11.9	11.6	11.9	11.9
45°	752.5	523.8	67.6	31.7	20.4	12.9	11.1	10.3	10.3	10.6	10.6
47.5°	821.6	548.3	55.4	29.1	17.0	10.8	9.5	9.0	9.0	9.3	9.3
50°	928.9	593.6	49.8	26.3	14.2	9.3	8.0	7.7	7.7	8.0	8.3
52.5°	1091.9	680.0	46.9	23.5	11.6	7.7	6.7	6.4	6.7	7.0	7.0
55°	1273.2	790.7	43.6	20.6	9.8	6.4	5.4	5.4	5.7	6.2	6.2
57.5°	1442.1	897.4	40.5	17.0	8.5	5.2	4.4	4.4	4.9	5.4	5.4
60°	1620.5	1002.1	36.4	13.7	7.2	4.1	3.6	3.6	4.4	4.9	5.2
62.5°	1841.0	1123.8	30.9	10.8	5.7	3.1	2.6	3.4	4.1	4.9	4.9
65°	2159.8	1275.2	24.2	8.5	4.4	2.3	2.1	3.1	3.9	4.6	4.9
67.5°	2275.5	1255.9	18.3	7.0	3.4	1.8	1.8	2.8	3.9	4.6	4.6
68°	2233.3	1213.6	17.5	6.7	3.1	1.8	1.8	2.8	3.9	4.6	4.6
70°	1946.0	992.1	14.4	5.2	2.6	1.5	1.5	2.6	3.9	4.4	4.6
72.5°	1457.0	659.1	12.4	3.4	2.3	1.5	1.3	2.6	3.6	4.4	4.4
75°	835.8	273.6	10.6	2.6	2.1	1.3	1.3	2.3	3.6	4.4	4.4
77.5°	236.2	64.0	8.5	2.1	1.8	1.3	1.0	2.3	3.4	4.1	4.1
80°	43.3	19.1	6.7	1.8	1.5	1.3	1.0	2.3	3.4	4.1	4.1
82.5°	28.6	9.0	4.9	1.8	1.5	1.3	1.0	2.1	3.1	3.9	3.9
85°	21.4	6.4	3.1	1.8	1.5	1.3	1.0	2.1	3.1	3.9	3.9
87.5°	11.9	2.8	2.3	2.1	1.8	1.3	1.0	1.8	2.8	3.6	3.6
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)