

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: P197089

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-8030-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P197089  
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-01-D-UNV-SL3-8030-600  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 3000K, 615mA LIGHTSQUARE 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: 3280 lumens  
Efficiency: N/A  
Efficacy: 96.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B1 - U0 - G1

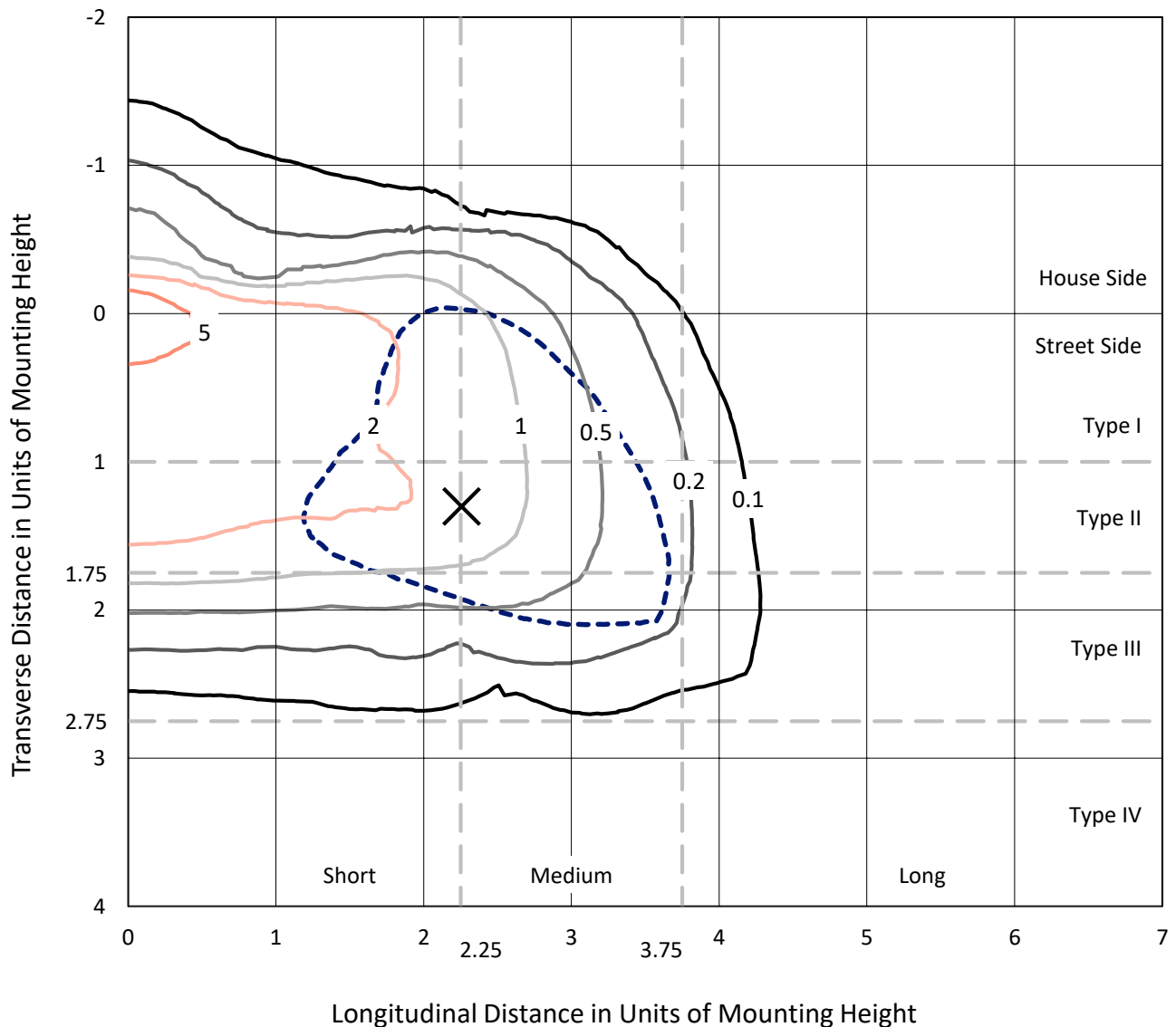
Input Watts (W): 34  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

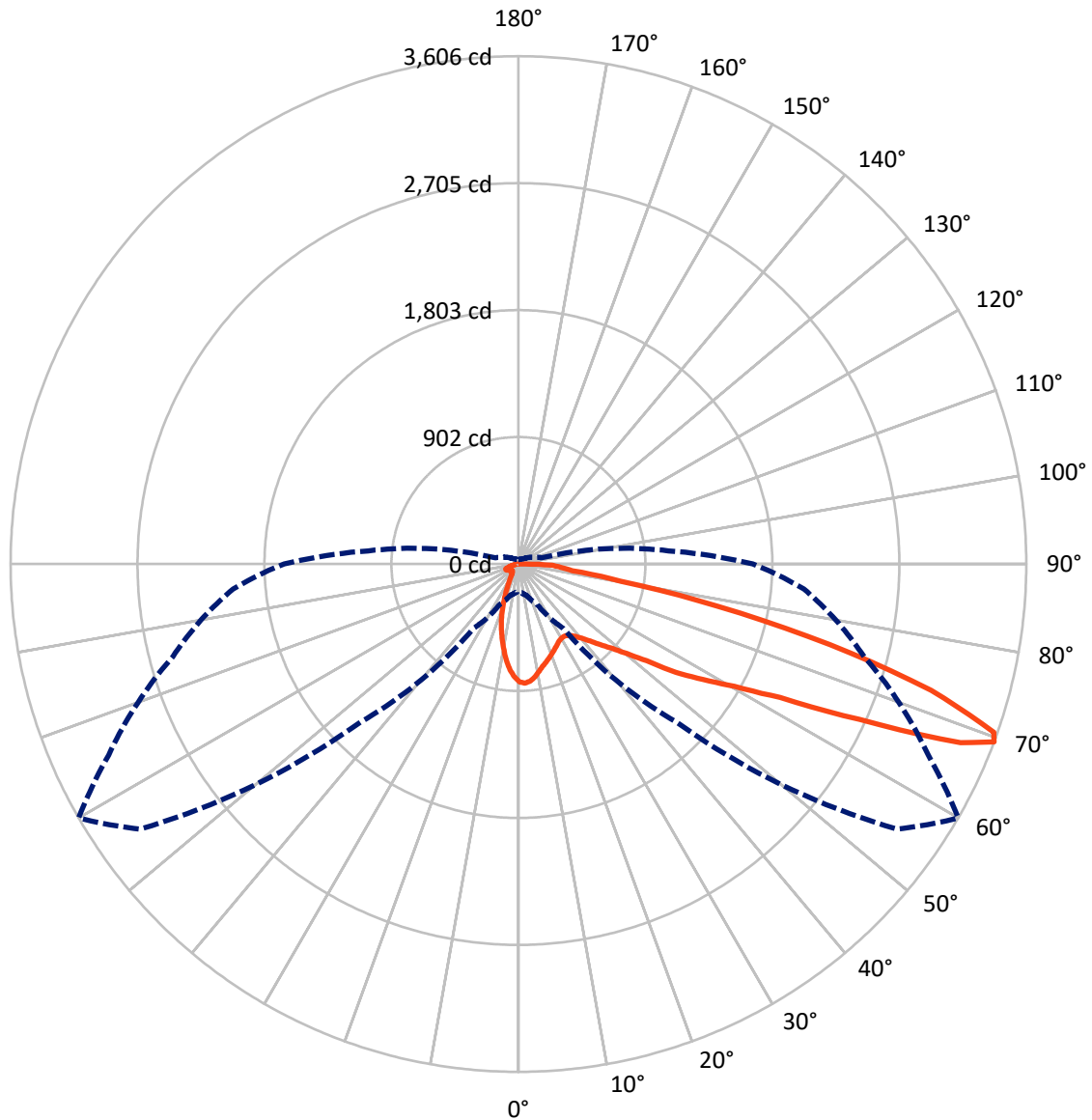
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.4 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
<b>House Side</b>	Lumens	467.8	0.0	467.8
	% Fixture	14.3	0.0	14.3
<b>Street Side</b>	Lumens	2812.2	0.0	2812.2
	% Fixture	85.7	0.0	85.7
<b>Total</b>	Lumens	3280.0	0.0	3280.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.0	2.2
10°-20°	152.0	4.6
20°-30°	193.9	5.9
30°-40°	266.9	8.1
40°-50°	432.3	13.2
50°-60°	678.4	20.7
60°-70°	904.4	27.6
70°-80°	503.1	15.3
80°-90°	78.0	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°	3280.0	100.0
0°-180°	3280.0	100.0



REPORT NUMBER: P197089

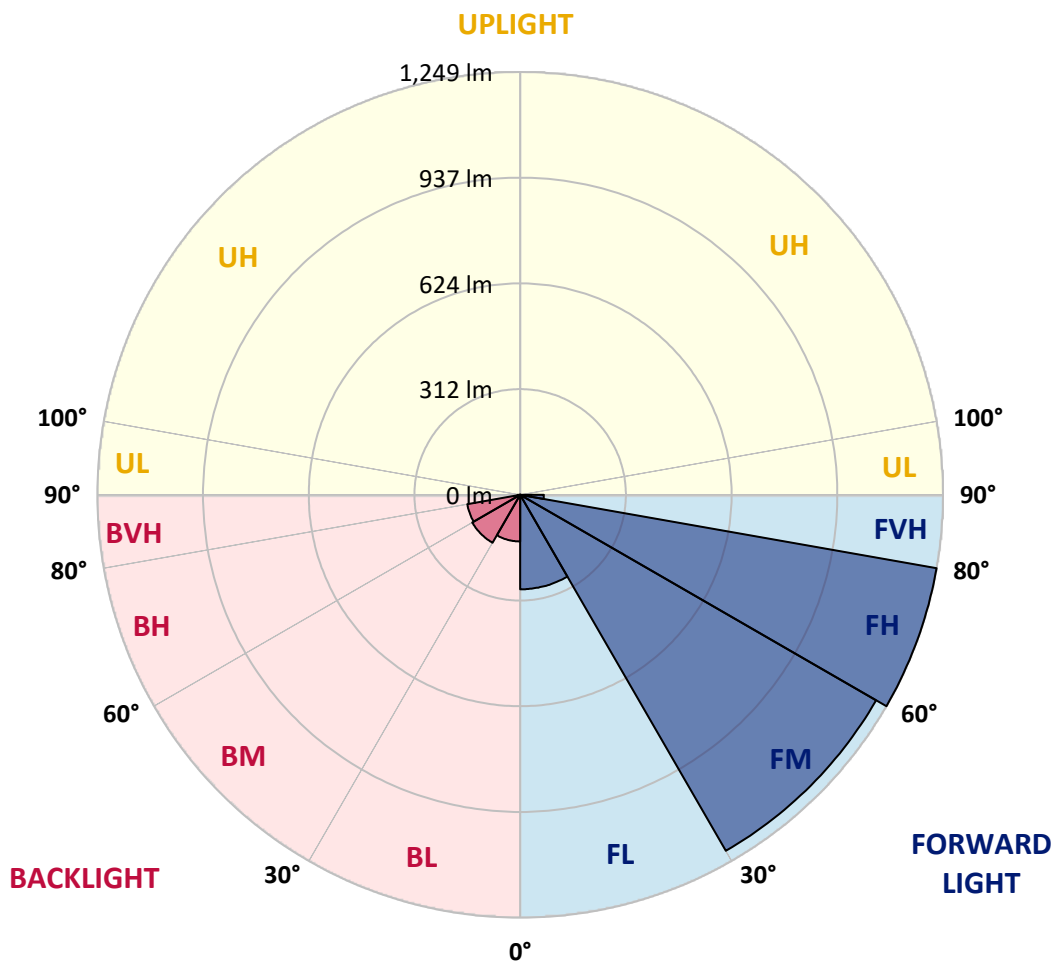
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	279.1	8.5			
FM	(30°-60°)	1214.1	37.0			
FH	(60°-80°)	1248.9	38.1			G1/1800
FVH	(80°-90°)	70.1	2.1			G1/100
BL	(0°-30°)	137.9	4.2	B1/500		
BM	(30°-60°)	163.4	5.0	B0/220		
BH	(60°-80°)	158.6	4.8	B1/500		G1/500
BVH	(80°-90°)	7.9	0.2			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type III Medium





REPORT NUMBER: P197089

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-8030-600

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	836.9	836.9	836.9	836.9	836.9	836.9	836.9	836.9	836.9	836.9	836.9
2.5°	859.2	861.5	861.5	859.6	858.6	852.5	848.9	846.4	842.0	833.7	826.4
5°	828.5	832.9	834.8	835.6	841.1	839.2	839.4	837.7	834.0	825.1	813.1
7.5°	772.1	773.0	776.3	782.0	795.3	804.5	812.1	813.6	812.7	806.2	789.4
10°	716.6	718.1	722.1	731.7	744.4	757.6	774.0	780.7	785.8	783.7	762.4
12.5°	670.5	670.7	675.2	686.3	700.4	717.0	739.3	749.8	761.8	766.7	742.9
15°	626.2	629.1	633.3	646.8	664.2	685.3	710.9	725.4	741.2	755.1	727.7
17.5°	592.5	594.8	597.3	608.5	628.7	655.0	686.7	702.3	723.1	744.4	712.2
20°	574.0	574.8	572.9	578.4	595.4	623.8	660.6	679.4	704.2	734.1	696.2
22.5°	570.2	570.2	563.3	562.2	569.8	593.8	633.7	656.6	686.9	726.9	681.9
25°	587.9	586.6	573.6	561.6	558.8	571.0	608.1	636.2	672.2	726.7	671.2
27.5°	621.3	619.6	603.4	583.2	565.8	560.5	588.3	617.1	660.6	733.8	665.7
30°	663.0	662.3	645.9	620.7	591.9	564.7	580.5	607.2	652.9	747.1	665.5
32.5°	708.6	705.7	695.6	670.3	632.9	588.1	585.1	607.6	650.8	766.4	670.3
35°	757.2	755.1	752.6	727.1	685.0	629.3	605.5	622.2	661.1	793.4	684.0
37.5°	819.0	816.7	820.9	793.2	747.1	683.4	640.0	651.2	682.1	832.5	709.4
40°	929.0	922.3	910.5	867.8	819.4	749.6	689.9	691.6	718.1	884.9	750.2
42.5°	1109.7	1088.0	1029.8	951.3	895.8	826.6	754.9	746.9	767.7	954.1	809.6
45°	1290.8	1266.4	1168.0	1042.4	974.9	909.3	835.2	816.1	829.5	1034.6	885.9
47.5°	1407.7	1395.7	1284.7	1133.5	1057.7	999.3	927.1	895.6	905.3	1125.9	980.1
50°	1442.0	1431.7	1344.4	1204.8	1136.0	1108.0	1040.9	999.1	1000.7	1232.5	1093.1
52.5°	1416.4	1412.2	1354.3	1248.9	1207.9	1222.6	1198.5	1140.2	1126.3	1349.5	1215.5
55°	1382.1	1383.5	1361.3	1293.3	1281.1	1329.5	1404.6	1357.7	1298.8	1471.3	1343.0
57.5°	1274.2	1275.2	1333.7	1377.9	1420.8	1479.2	1565.1	1545.3	1476.7	1602.7	1485.8
60°	1026.0	1034.2	1164.4	1360.4	1580.4	1774.3	1795.4	1761.3	1666.0	1754.2	1671.5
62.5°	733.0	740.4	891.2	1181.0	1561.7	2108.3	2220.7	2085.2	1922.8	1980.7	1932.7
65°	385.1	383.9	500.6	816.1	1315.4	2185.7	2890.8	2660.3	2355.5	2292.2	2185.1
67.5°	215.2	222.1	267.3	411.6	857.3	1923.7	3318.8	3386.7	2957.0	2539.3	2174.2
69°	199.0	201.3	231.6	318.2	558.8	1587.1	3282.0	3606.1	3210.7	2540.4	2034.1
70°	193.3	195.8	223.4	293.2	469.5	1300.5	3148.0	3580.4	3272.3	2484.0	1906.6
72.5°	173.3	176.7	203.4	263.5	395.6	670.3	2535.7	3064.5	2964.2	2171.0	1478.4
75°	147.9	153.5	193.9	261.7	374.8	426.1	1691.1	2283.1	2206.1	1552.7	838.8
77.5°	61.2	61.8	84.8	191.6	393.3	407.8	908.8	1446.2	1280.3	680.8	252.6
80°	42.7	41.9	42.3	55.9	317.4	410.6	466.3	735.5	571.7	179.6	118.2
82.5°	36.0	35.5	37.2	35.1	107.5	465.9	390.0	383.4	269.2	96.8	56.4
85°	23.8	23.1	30.5	32.0	51.1	370.0	419.4	301.4	200.7	51.7	24.0
87.5°	11.6	11.8	17.5	21.7	27.1	117.2	401.7	238.3	155.0	22.5	9.7
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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CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-8030-600

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	836.9	836.9	836.9	836.9	836.9	836.9	836.9	836.9	836.9	836.9	836.9
2.5°	823.4	817.1	811.5	804.3	798.8	794.2	787.9	787.7	786.6	788.1	788.5
5°	805.1	794.6	778.6	760.8	748.1	731.5	715.3	709.9	703.8	703.1	705.0
7.5°	777.6	761.2	733.8	706.5	679.2	651.2	624.7	611.2	598.2	594.2	596.1
10°	746.9	726.1	684.2	639.6	601.1	559.5	519.1	493.0	469.2	459.2	461.7
12.5°	722.9	696.4	637.5	579.7	522.0	462.3	409.1	357.6	318.6	301.2	302.2
15°	702.3	668.4	593.8	516.8	444.6	362.8	289.0	229.3	195.2	182.6	182.1
17.5°	680.0	639.0	548.1	458.3	364.7	263.5	193.5	158.2	144.7	140.5	140.5
20°	656.2	608.7	500.4	394.6	280.6	184.0	145.5	131.9	126.8	125.6	125.4
22.5°	634.1	579.0	452.4	326.6	203.0	139.7	123.9	118.6	117.8	118.8	118.8
25°	616.7	553.0	403.8	255.1	147.7	116.9	110.2	109.6	112.7	116.5	117.2
27.5°	603.6	529.6	355.9	186.4	116.1	101.8	99.5	102.2	109.6	117.2	118.6
30°	594.6	509.6	298.5	134.0	96.8	89.2	90.2	95.1	106.2	117.8	120.9
32.5°	590.6	493.4	240.6	102.9	82.7	78.5	81.2	87.5	99.1	110.6	114.4
35°	594.4	481.7	187.2	85.4	72.4	69.2	72.4	78.9	86.4	92.1	94.4
37.5°	608.1	477.4	140.9	75.7	65.6	62.5	65.0	69.4	72.8	74.9	75.9
40°	636.9	481.9	110.4	70.7	61.8	58.3	58.9	61.0	63.3	65.0	65.2
42.5°	682.7	496.4	98.2	68.8	59.5	54.9	53.8	55.3	57.8	60.2	60.6
45°	743.7	520.6	97.0	69.4	58.5	52.2	50.1	51.5	54.9	58.7	59.3
47.5°	822.6	558.8	102.9	72.8	59.1	50.7	47.5	49.0	53.4	58.5	59.3
50°	916.0	611.8	113.8	77.8	62.0	50.7	46.5	47.7	52.4	58.1	58.9
52.5°	1026.0	685.7	125.1	82.9	66.3	52.6	46.9	46.7	50.9	56.2	57.2
55°	1147.3	777.4	136.1	87.3	68.6	55.1	48.0	45.4	48.8	53.0	53.8
57.5°	1290.2	902.9	155.2	91.5	69.8	57.0	49.2	44.2	46.1	49.0	49.6
60°	1483.9	1087.4	192.5	98.6	72.1	57.8	49.4	42.9	42.7	44.8	45.0
62.5°	1736.5	1303.4	228.0	107.1	76.8	58.1	48.6	42.1	40.0	40.6	40.6
65°	1916.1	1382.9	217.7	114.2	81.0	57.8	47.7	41.4	37.9	36.8	36.8
67.5°	1813.9	1221.6	184.9	116.1	81.4	55.5	45.9	40.0	36.0	33.4	33.4
69°	1663.7	1070.8	169.7	112.7	78.0	52.8	43.7	38.5	34.7	31.8	31.8
70°	1541.3	956.6	160.5	108.7	74.0	50.5	41.9	37.0	33.4	30.9	30.7
72.5°	1150.7	638.4	137.1	93.8	60.8	42.7	36.6	33.0	30.1	28.4	28.4
75°	607.2	319.9	112.3	76.6	46.9	34.1	30.1	27.8	26.1	25.9	25.7
77.5°	199.0	144.7	80.8	57.6	34.5	26.5	24.0	22.5	22.3	23.1	23.1
80°	107.5	86.4	52.0	38.9	24.0	19.8	18.5	18.3	18.9	20.2	20.2
82.5°	52.2	42.7	30.9	24.0	16.4	14.5	14.5	14.7	15.6	17.0	17.0
85°	22.5	20.2	17.9	13.5	10.1	9.0	10.3	11.4	12.0	13.0	13.5
87.5°	10.7	9.5	8.2	5.3	4.4	4.6	5.5	6.7	8.0	8.8	9.0
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)