

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: P197095

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-8030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197095
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-SL3-8030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 800mA 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: 4023 lumens
Efficiency: N/A
Efficacy: 91.4 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

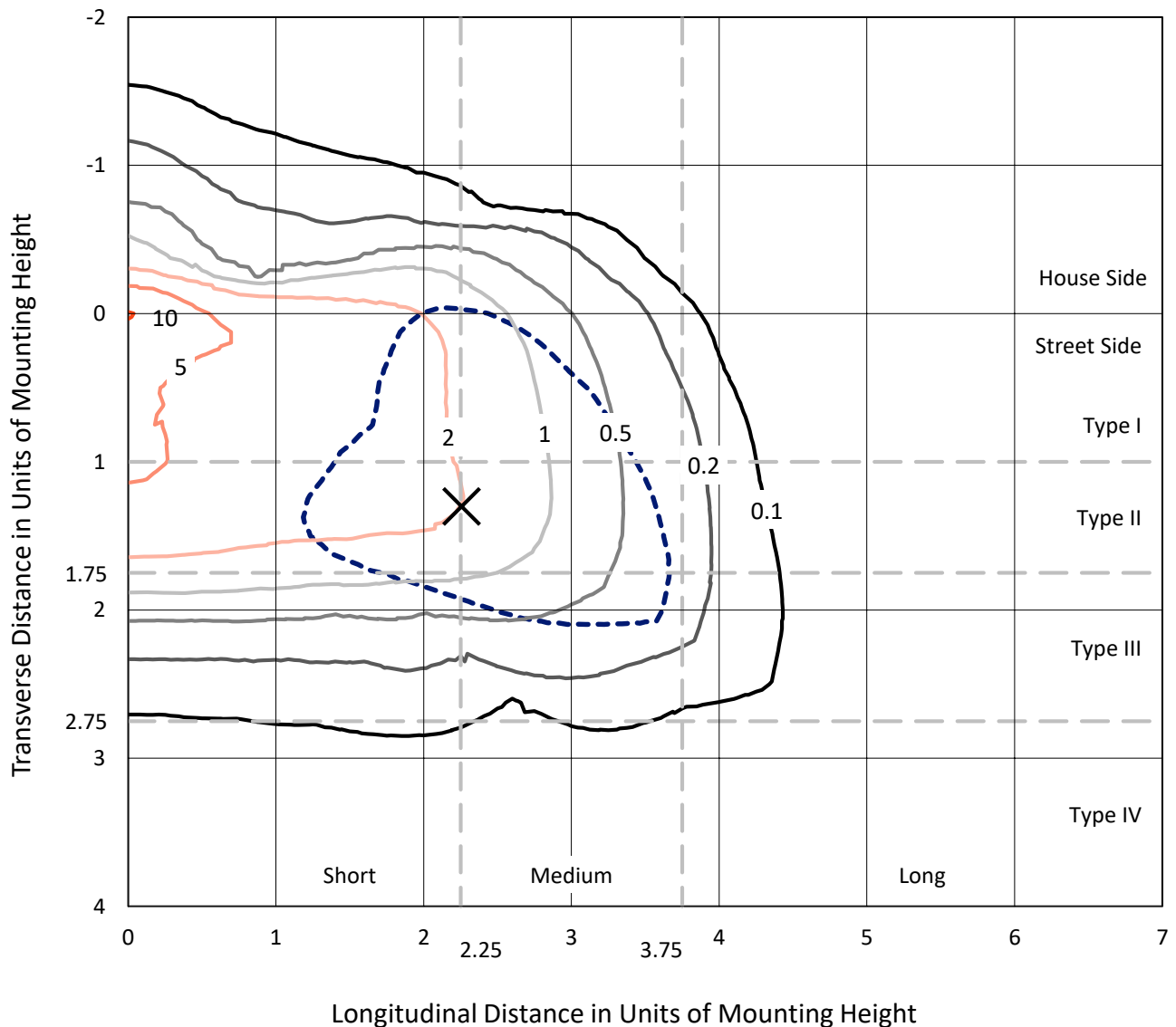
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P197095
 CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-8030-800

Iso-Footcandle Lines of Horizontal Illumination

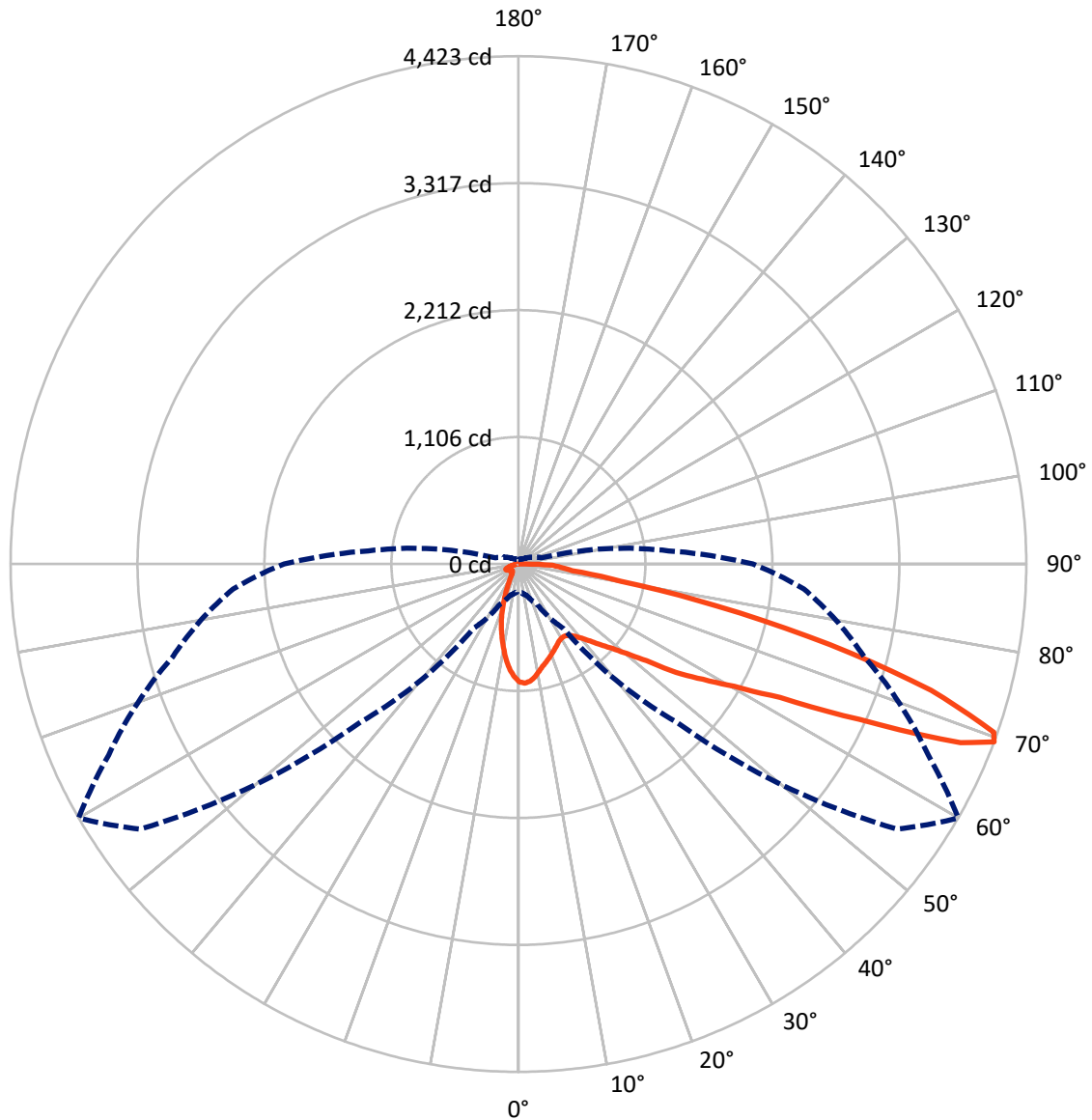
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.3 fc
 Type III - Medium - Non-Cutoff

REPORT NUMBER: P197095
CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-8030-800

Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P197095

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-8030-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	573.8	0.0	573.8
	% Fixture	14.3	0.0	14.3
Street Side	Lumens	3449.2	0.0	3449.2
	% Fixture	85.7	0.0	85.7
Total	Lumens	4023.0	0.0	4023.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.1	2.2
10°-20°	186.5	4.6
20°-30°	237.9	5.9
30°-40°	327.3	8.1
40°-50°	530.2	13.2
50°-60°	832.1	20.7
60°-70°	1109.3	27.6
70°-80°	617.0	15.3
80°-90°	95.7	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°	4023.0	100.0
0°-180°	4023.0	100.0

Coefficient of Utilization



REPORT NUMBER: P197095

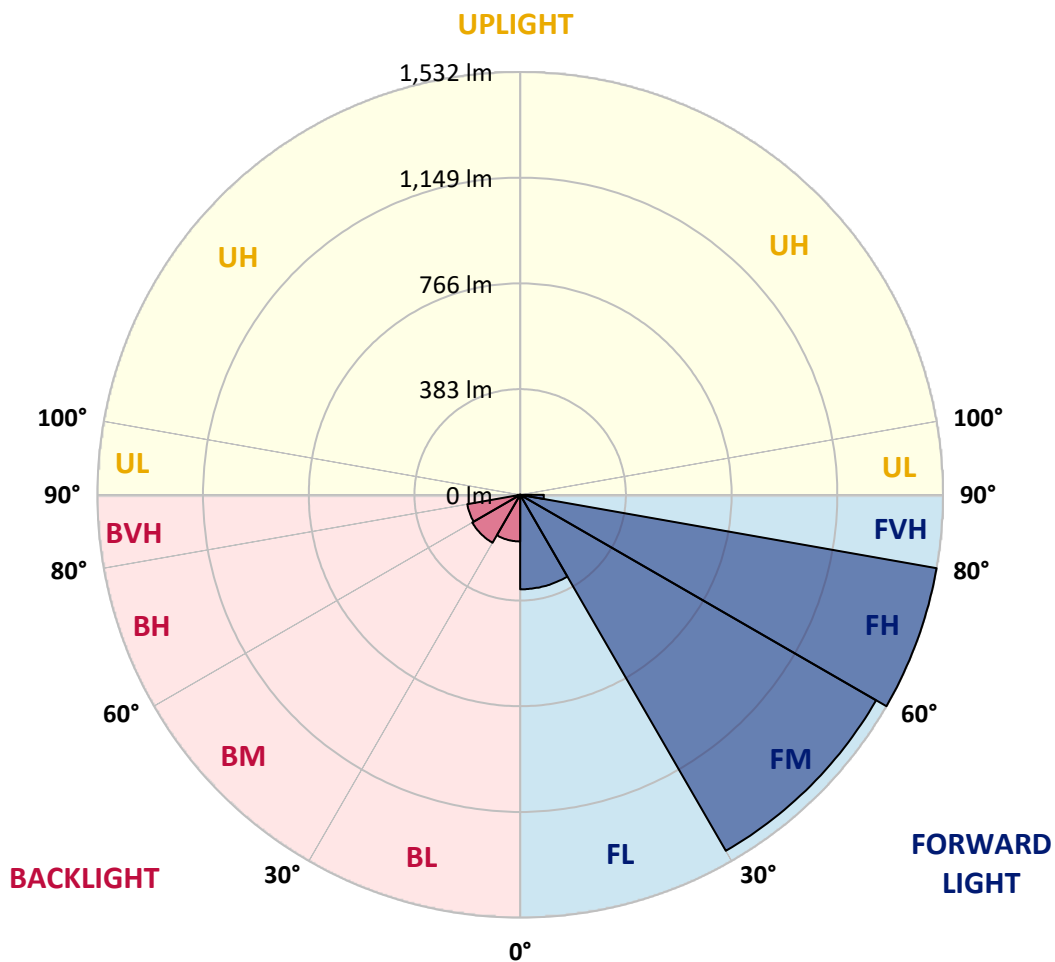
CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-8030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	342.3	8.5			
FM	(30°-60°)	1489.1	37.0			
FH	(60°-80°)	1531.8	38.1			G1/1800
FVH	(80°-90°)	86.0	2.1			G1/100
BL	(0°-30°)	169.1	4.2	B1/500		
BM	(30°-60°)	200.5	5.0	B0/220		
BH	(60°-80°)	194.6	4.8	B1/500		G1/500
BVH	(80°-90°)	9.7	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: P197095

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-8030-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5
2.5°	1053.8	1056.7	1056.7	1054.3	1053.1	1045.6	1041.2	1038.1	1032.7	1022.6	1013.6
5°	1016.2	1021.6	1023.9	1024.9	1031.6	1029.3	1029.6	1027.5	1022.9	1012.0	997.3
7.5°	947.0	948.1	952.2	959.1	975.4	986.8	996.0	997.8	996.8	988.8	968.2
10°	878.9	880.7	885.6	897.5	913.0	929.2	949.3	957.6	963.8	961.2	935.2
12.5°	822.4	822.7	828.1	841.8	859.1	879.4	906.8	919.7	934.4	940.3	911.2
15°	768.0	771.6	776.8	793.3	814.7	840.5	872.0	889.8	909.1	926.1	892.6
17.5°	726.7	729.6	732.6	746.3	771.1	803.3	842.3	861.4	886.9	913.0	873.5
20°	704.0	705.0	702.7	709.4	730.3	765.2	810.3	833.3	863.7	900.3	853.9
22.5°	699.4	699.4	690.9	689.6	698.9	728.3	777.3	805.4	842.5	891.6	836.4
25°	721.0	719.5	703.5	688.8	685.4	700.4	745.8	780.4	824.5	891.3	823.2
27.5°	762.1	760.0	740.1	715.4	694.0	687.5	721.6	756.9	810.3	900.1	816.5
30°	813.1	812.4	792.2	761.3	725.9	692.7	712.0	744.8	800.8	916.3	816.2
32.5°	869.1	865.5	853.1	822.2	776.2	721.3	717.7	745.3	798.2	940.1	822.2
35°	928.7	926.1	923.0	891.8	840.2	771.9	742.7	763.1	810.8	973.1	838.9
37.5°	1004.6	1001.7	1006.9	972.8	916.3	838.2	785.0	798.7	836.6	1021.1	870.1
40°	1139.5	1131.2	1116.8	1064.4	1005.1	919.4	846.2	848.2	880.7	1085.3	920.2
42.5°	1361.1	1334.5	1263.0	1166.8	1098.7	1013.8	925.9	916.1	941.6	1170.2	992.9
45°	1583.2	1553.3	1432.5	1278.5	1195.7	1115.2	1024.4	1000.9	1017.5	1269.0	1086.6
47.5°	1726.6	1711.9	1575.7	1390.2	1297.4	1225.6	1137.2	1098.5	1110.3	1380.9	1202.2
50°	1768.7	1756.0	1649.0	1477.7	1393.3	1359.0	1276.7	1225.4	1227.4	1511.7	1340.7
52.5°	1737.2	1732.0	1661.1	1531.9	1481.5	1499.6	1469.9	1398.5	1381.5	1655.2	1490.8
55°	1695.2	1697.0	1669.6	1586.3	1571.3	1630.7	1722.8	1665.2	1593.0	1804.5	1647.2
57.5°	1562.8	1564.1	1635.8	1690.0	1742.6	1814.3	1919.6	1895.3	1811.2	1965.8	1822.3
60°	1258.4	1268.5	1428.1	1668.6	1938.4	2176.3	2202.1	2160.3	2043.4	2151.5	2050.1
62.5°	899.0	908.1	1093.0	1448.5	1915.5	2585.9	2723.7	2557.6	2358.4	2429.3	2370.5
65°	472.4	470.8	614.0	1000.9	1613.4	2680.9	3545.6	3262.9	2889.1	2811.4	2680.1
67.5°	263.9	272.4	327.9	504.9	1051.5	2359.4	4070.6	4153.9	3626.9	3114.5	2666.7
69°	244.0	246.9	284.0	390.3	685.4	1946.7	4025.4	4423.0	3938.0	3115.8	2494.9
70°	237.1	240.2	274.0	359.6	575.8	1595.1	3861.1	4391.5	4013.6	3046.7	2338.5
72.5°	212.6	216.7	249.5	323.2	485.3	822.2	3110.1	3758.7	3635.6	2662.8	1813.3
75°	181.4	188.3	237.9	320.9	459.7	522.7	2074.1	2800.3	2705.9	1904.4	1028.8
77.5°	75.1	75.8	104.0	235.0	482.4	500.2	1114.7	1773.8	1570.3	835.1	309.8
80°	52.4	51.3	51.9	68.6	389.3	503.6	571.9	902.1	701.2	220.3	145.0
82.5°	44.1	43.6	45.7	43.1	131.8	571.4	478.3	470.3	330.2	118.7	69.1
85°	29.2	28.4	37.4	39.2	62.7	453.8	514.4	369.7	246.1	63.5	29.4
87.5°	14.2	14.4	21.4	26.6	33.3	143.7	492.7	292.3	190.1	27.6	11.9
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: P197095

CATALOG NUMBER: NAV-AF-01-D-UNV-SL3-8030-800

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5	1026.5
2.5°	1010.0	1002.2	995.3	986.5	979.8	974.1	966.4	966.1	964.8	966.6	967.1
5°	987.5	974.6	955.0	933.1	917.6	897.2	877.4	870.7	863.2	862.4	864.7
7.5°	953.7	933.6	900.1	866.5	833.0	798.7	766.2	749.7	733.7	728.8	731.1
10°	916.1	890.5	839.2	784.5	737.3	686.2	636.7	604.7	575.5	563.2	566.3
12.5°	886.7	854.2	781.9	711.0	640.3	567.0	501.8	438.6	390.8	369.4	370.7
15°	861.4	819.8	728.3	633.8	545.4	445.0	354.5	281.2	239.4	223.9	223.4
17.5°	834.0	783.7	672.3	562.1	447.3	323.2	237.3	194.0	177.5	172.3	172.3
20°	804.9	746.6	613.7	484.0	344.1	225.7	178.5	161.8	155.6	154.0	153.8
22.5°	777.8	710.2	554.9	400.6	248.9	171.3	151.9	145.5	144.5	145.8	145.8
25°	756.4	678.2	495.3	312.9	181.1	143.4	135.2	134.4	138.3	142.9	143.7
27.5°	740.4	649.6	436.5	228.6	142.4	124.9	122.0	125.4	134.4	143.7	145.5
30°	729.3	625.1	366.1	164.3	118.7	109.4	110.7	116.6	130.3	144.5	148.3
32.5°	724.4	605.2	295.1	126.1	101.4	96.2	99.6	107.3	121.5	135.7	140.3
35°	729.0	590.8	229.6	104.7	88.7	84.9	88.7	96.7	106.0	113.0	115.8
37.5°	745.8	585.6	172.8	92.9	80.5	76.6	79.7	85.1	89.3	91.8	93.1
40°	781.1	591.0	135.4	86.7	75.8	71.5	72.2	74.8	77.7	79.7	80.0
42.5°	837.4	608.8	120.5	84.4	73.0	67.3	66.0	67.8	70.9	73.8	74.3
45°	912.2	638.5	118.9	85.1	71.7	64.0	61.4	63.2	67.3	72.0	72.7
47.5°	1008.9	685.4	126.1	89.3	72.5	62.2	58.3	60.1	65.5	71.7	72.7
50°	1123.5	750.4	139.6	95.5	76.1	62.2	57.0	58.6	64.2	71.2	72.2
52.5°	1258.4	841.0	153.5	101.6	81.3	64.5	57.5	57.3	62.4	68.9	70.2
55°	1407.3	953.5	166.9	107.1	84.1	67.6	58.8	55.7	59.9	65.0	66.0
57.5°	1582.4	1107.5	190.4	112.2	85.6	69.9	60.4	54.2	56.5	60.1	60.9
60°	1820.0	1333.7	236.0	121.0	88.5	70.9	60.6	52.6	52.4	54.9	55.2
62.5°	2129.8	1598.7	279.6	131.3	94.2	71.2	59.6	51.6	49.0	49.8	49.8
65°	2350.1	1696.2	267.0	140.1	99.3	70.9	58.6	50.8	46.4	45.1	45.1
67.5°	2224.8	1498.3	226.8	142.4	99.8	68.1	56.2	49.0	44.1	41.0	41.0
69°	2040.6	1313.3	208.2	138.3	95.7	64.8	53.7	47.2	42.6	39.0	39.0
70°	1890.4	1173.3	196.8	133.4	90.8	61.9	51.3	45.4	41.0	37.9	37.7
72.5°	1411.4	783.0	168.2	115.1	74.6	52.4	44.9	40.5	36.9	34.8	34.8
75°	744.8	392.4	137.8	93.9	57.5	41.8	36.9	34.1	32.0	31.7	31.5
77.5°	244.0	177.5	99.1	70.7	42.3	32.5	29.4	27.6	27.3	28.4	28.4
80°	131.8	106.0	63.7	47.7	29.4	24.2	22.7	22.4	23.2	24.8	24.8
82.5°	64.0	52.4	37.9	29.4	20.1	17.8	17.8	18.1	19.1	20.9	20.9
85°	27.6	24.8	21.9	16.5	12.4	11.1	12.6	13.9	14.7	16.0	16.5
87.5°	13.2	11.6	10.1	6.4	5.4	5.7	6.7	8.3	9.8	10.8	11.1
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)