

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: P270276

Luminaire Tested: **NAV-AF-01-D-UNV-SL3-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270276
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-SL3-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 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: 4283.2 lumens
Efficiency: N/A
Efficacy: 97.3 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

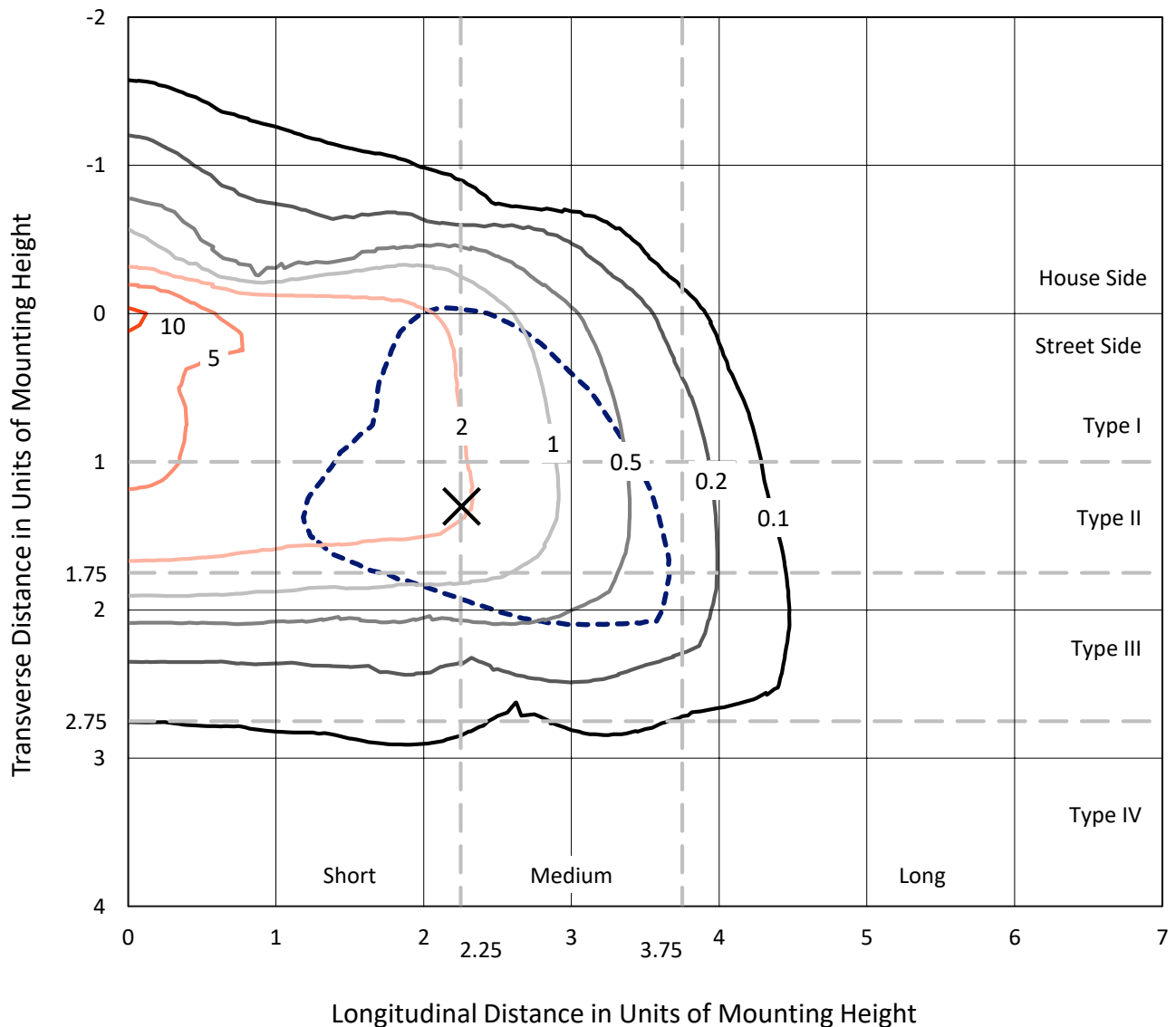
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

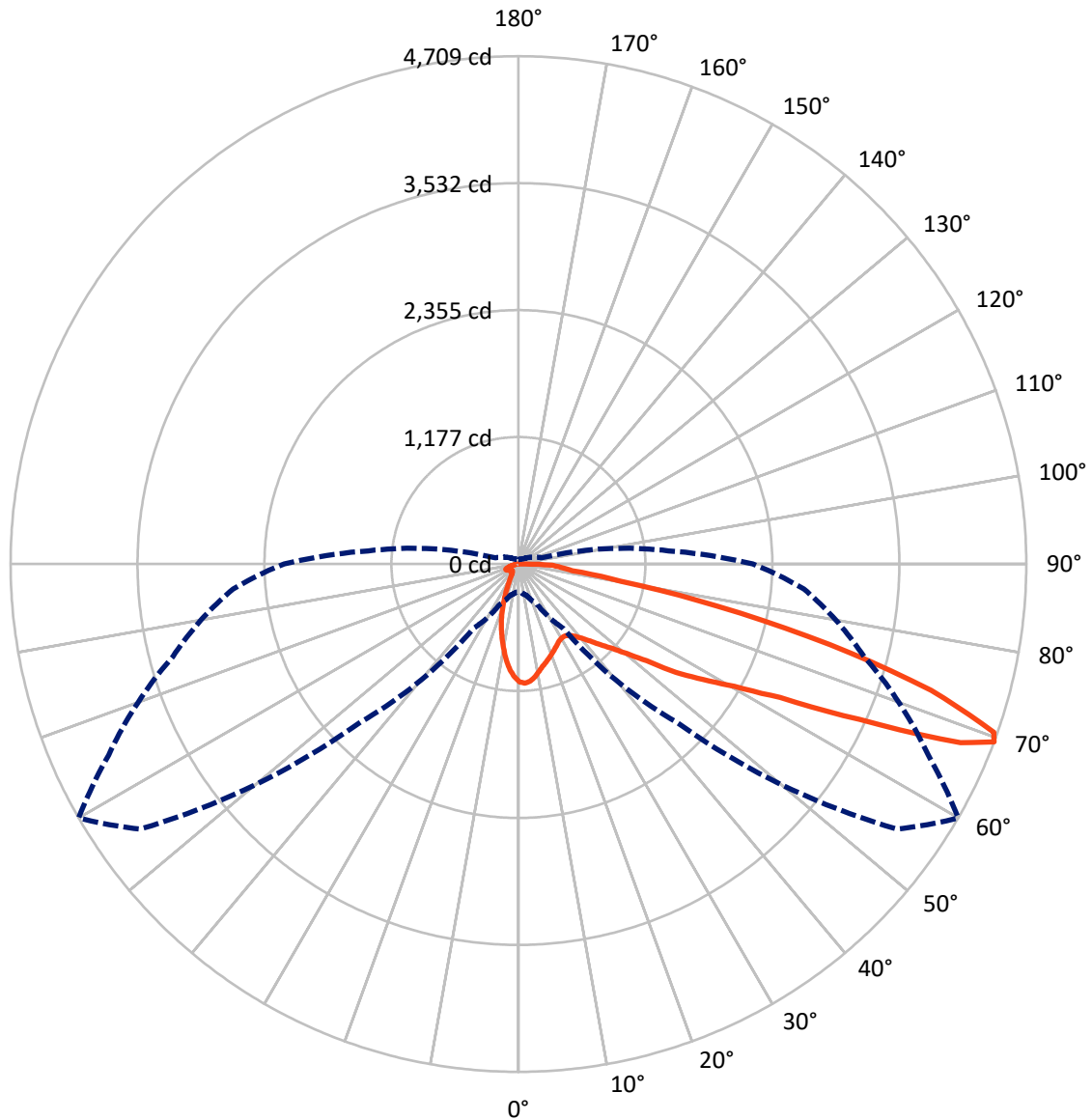
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.9 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
House Side	Lumens	610.9	0.0	610.9
	% Fixture	14.3	0.0	14.3
Street Side	Lumens	3672.3	0.0	3672.3
	% Fixture	85.7	0.0	85.7
Total	Lumens	4283.2	0.0	4283.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	2.2
10°-20°	198.5	4.6
20°-30°	253.2	5.9
30°-40°	348.5	8.1
40°-50°	564.5	13.2
50°-60°	885.9	20.7
60°-70°	1181.1	27.6
70°-80°	657.0	15.3
80°-90°	101.9	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°	4283.2	100.0
0°-180°	4283.2	100.0

Coefficient of Utilization



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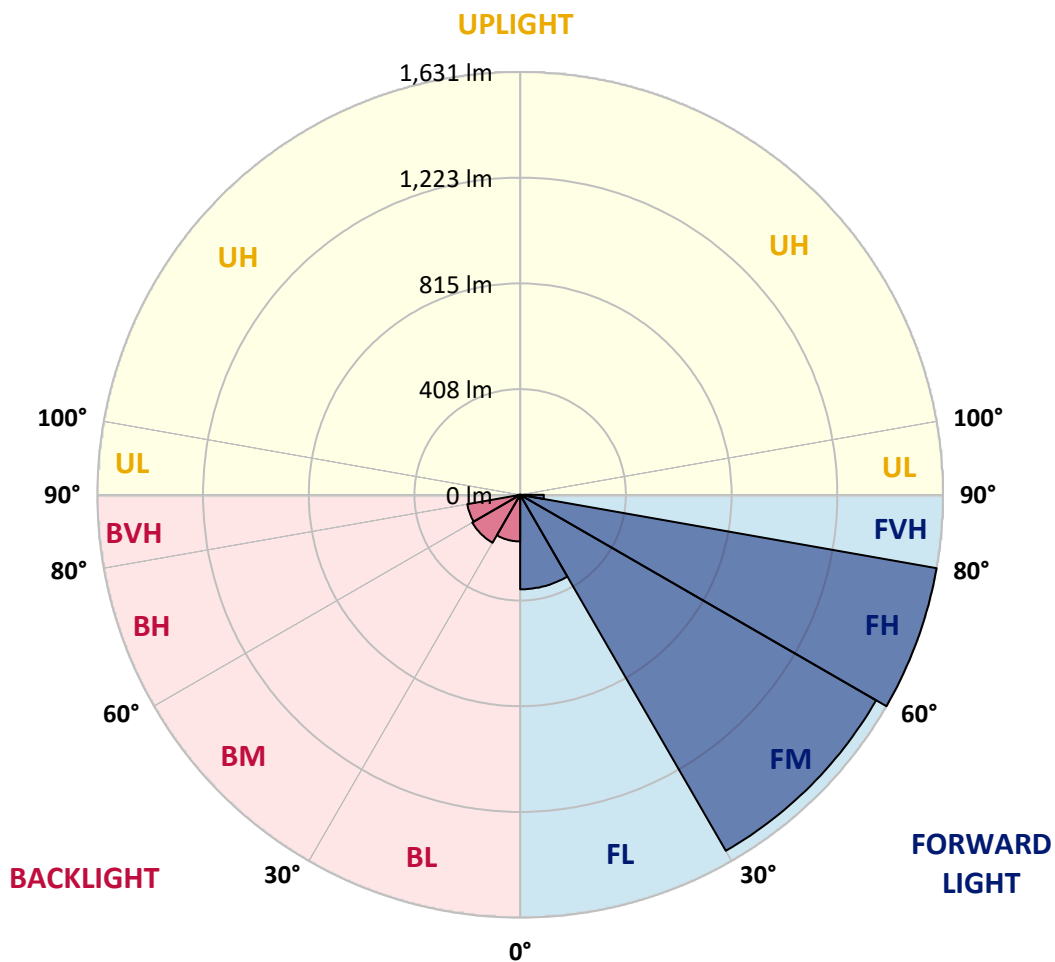
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	364.4	8.5			
FM	(30°-60°)	1585.4	37.0			
FH	(60°-80°)	1630.9	38.1			G1/1800
FVH	(80°-90°)	91.6	2.1			G1/100
BL	(0°-30°)	180.0	4.2	B1/500		
BM	(30°-60°)	213.4	5.0	B0/220		
BH	(60°-80°)	207.1	4.8	B1/500		G1/500
BVH	(80°-90°)	10.3	0.2			G1/100
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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	1092.9	1092.9	1092.9	1092.9	1092.9	1092.9	1092.9	1092.9	1092.9	1092.9	1092.9
2.5°	1122.1	1124.9	1124.9	1122.5	1121.2	1113.2	1108.5	1105.3	1099.4	1088.7	1079.1
5°	1081.9	1087.7	1090.2	1091.3	1098.4	1095.9	1096.1	1094.0	1089.0	1077.4	1061.8
7.5°	1008.3	1009.3	1013.7	1021.2	1038.5	1050.6	1060.4	1062.3	1061.3	1052.8	1030.7
10°	935.8	937.7	943.0	955.5	972.1	989.4	1010.8	1019.5	1026.1	1023.3	995.6
12.5°	875.6	875.8	881.6	896.1	914.7	936.4	965.4	979.2	994.9	1001.2	970.1
15°	817.6	821.5	827.0	844.5	867.4	894.8	928.4	947.4	968.0	986.0	950.3
17.5°	773.7	776.8	780.0	794.6	821.0	855.2	896.8	917.1	944.3	972.1	929.9
20°	749.5	750.7	748.2	755.4	777.6	814.7	862.7	887.2	919.5	958.5	909.2
22.5°	744.5	744.5	735.5	734.2	744.1	775.3	827.6	857.5	897.0	949.1	890.4
25°	767.7	766.1	748.9	733.3	729.8	745.8	794.0	830.8	877.9	949.0	876.4
27.5°	811.3	809.2	788.1	761.7	738.9	731.9	768.2	805.9	862.7	958.3	869.3
30°	865.7	864.9	843.5	810.5	772.9	737.5	758.1	792.9	852.5	975.6	869.0
32.5°	925.3	921.5	908.2	875.4	826.4	768.0	764.1	793.6	849.7	1000.8	875.4
35°	988.8	986.0	982.7	949.5	894.5	821.8	790.8	812.4	863.2	1036.0	893.2
37.5°	1069.5	1066.5	1071.9	1035.7	975.6	892.3	835.9	850.3	890.7	1087.0	926.4
40°	1213.3	1204.4	1188.9	1133.2	1070.2	979.0	900.9	903.1	937.7	1155.5	979.7
42.5°	1449.1	1420.8	1344.8	1242.3	1169.8	1079.5	985.8	975.3	1002.5	1245.9	1057.1
45°	1685.6	1653.7	1525.2	1361.2	1273.1	1187.4	1090.6	1065.7	1083.3	1351.1	1156.8
47.5°	1838.3	1822.7	1677.7	1480.1	1381.2	1304.9	1210.6	1169.6	1182.1	1470.3	1279.9
50°	1883.0	1869.6	1755.6	1573.2	1483.5	1446.9	1359.2	1304.6	1306.9	1609.6	1427.3
52.5°	1849.6	1844.1	1768.6	1631.0	1577.3	1596.6	1564.9	1488.9	1470.9	1762.2	1587.2
55°	1804.8	1806.8	1777.6	1688.9	1673.0	1736.2	1834.2	1773.0	1696.0	1921.3	1753.8
57.5°	1663.9	1665.3	1741.6	1799.2	1855.3	1931.6	2043.7	2018.0	1928.4	2093.0	1940.2
60°	1339.8	1350.5	1520.6	1776.5	2063.8	2317.0	2344.4	2300.0	2175.5	2290.7	2182.7
62.5°	957.1	966.8	1163.8	1542.2	2039.3	2753.1	2899.9	2722.9	2510.9	2586.5	2523.9
65°	503.0	501.3	653.6	1065.7	1717.6	2854.3	3774.9	3473.8	3075.8	2993.2	2853.5
67.5°	281.0	290.1	349.1	537.5	1119.5	2512.0	4333.9	4422.5	3861.5	3316.0	2839.2
69°	259.8	262.8	302.4	415.6	729.8	2072.6	4285.8	4709.1	4192.7	3317.4	2656.2
70°	252.5	255.7	291.7	382.9	613.1	1698.2	4110.9	4675.5	4273.1	3243.7	2489.8
72.5°	226.4	230.8	265.5	344.1	516.6	875.4	3311.3	4001.8	3870.7	2835.1	1930.5
75°	193.0	200.5	253.2	341.6	489.4	556.5	2208.3	2981.5	2881.0	2027.6	1095.4
77.5°	79.9	80.8	110.8	250.2	513.7	532.5	1186.8	1888.5	1671.8	889.1	329.9
80°	55.8	54.6	55.2	73.0	414.5	536.2	609.0	960.5	746.5	234.5	154.4
82.5°	47.0	46.4	48.6	45.9	140.3	608.3	509.2	500.7	351.5	126.3	73.7
85°	31.0	30.3	39.9	41.7	66.7	483.1	547.6	393.5	262.0	67.6	31.4
87.5°	15.1	15.5	22.7	28.2	35.5	153.0	524.6	311.3	202.4	29.4	12.7
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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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1092.9	1092.9	1092.9	1092.9	1092.9	1092.9	1092.9	1092.9	1092.9	1092.9	1092.9
2.5°	1075.4	1067.0	1059.6	1050.3	1043.1	1037.2	1028.9	1028.6	1027.2	1029.2	1029.6
5°	1051.3	1037.6	1016.8	993.4	976.9	955.3	934.1	927.1	919.0	918.2	920.7
7.5°	1015.4	994.0	958.3	922.6	886.8	850.3	815.8	798.1	781.2	776.0	778.4
10°	975.3	948.2	893.5	835.2	784.9	730.6	677.9	643.7	612.7	599.6	602.9
12.5°	943.9	909.4	832.5	756.9	681.8	603.8	534.2	466.8	416.2	393.3	394.6
15°	917.1	872.9	775.3	674.8	580.7	473.8	377.4	299.3	254.8	238.4	237.8
17.5°	888.0	834.4	715.8	598.5	476.2	344.1	252.8	206.5	189.0	183.4	183.4
20°	857.0	794.9	653.3	515.3	366.4	240.3	190.1	172.2	165.6	164.0	163.8
22.5°	828.1	756.2	590.7	426.5	265.0	182.4	161.8	154.9	153.8	155.1	155.1
25°	805.3	722.1	527.3	333.1	192.7	152.7	143.9	143.1	147.2	152.2	153.0
27.5°	788.3	691.5	464.8	243.4	151.6	132.9	130.0	133.5	143.1	153.0	154.9
30°	776.5	665.6	389.8	175.0	126.3	116.5	117.9	124.1	138.7	153.8	157.9
32.5°	771.3	644.4	314.1	134.2	107.9	102.4	106.0	114.3	129.4	144.4	149.4
35°	776.1	629.0	244.5	111.5	94.5	90.4	94.5	102.9	112.8	120.4	123.2
37.5°	794.0	623.5	184.1	98.9	85.7	81.6	84.9	90.5	95.0	97.7	99.2
40°	831.7	629.3	144.2	92.3	80.8	76.0	77.0	79.7	82.6	84.9	85.2
42.5°	891.6	648.1	128.3	89.8	77.8	71.7	70.2	72.3	75.5	78.5	79.1
45°	971.2	679.7	126.7	90.5	76.4	68.1	65.3	67.4	71.7	76.6	77.4
47.5°	1074.3	729.8	134.2	95.0	77.2	66.1	62.1	64.0	69.8	76.4	77.4
50°	1196.2	799.0	148.6	101.6	81.0	66.1	60.6	62.3	68.5	75.7	77.0
52.5°	1339.8	895.4	163.4	108.2	86.5	68.7	61.3	60.9	66.5	73.3	74.6
55°	1498.3	1015.2	177.8	113.9	89.6	72.0	62.6	59.3	63.7	69.2	70.2
57.5°	1684.7	1179.1	202.7	119.5	91.2	74.4	64.3	57.8	60.1	64.0	64.8
60°	1937.7	1420.0	251.3	128.7	94.2	75.5	64.6	56.1	55.8	58.5	58.7
62.5°	2267.6	1702.1	297.7	139.7	100.3	75.7	63.4	54.9	52.2	53.0	53.0
65°	2502.1	1806.0	284.3	149.2	105.7	75.5	62.3	54.1	49.4	48.1	48.1
67.5°	2368.7	1595.2	241.5	151.6	106.3	72.6	59.8	52.2	47.0	43.7	43.7
69°	2172.6	1398.3	221.6	147.2	101.9	68.9	57.1	50.2	45.4	41.5	41.5
70°	2012.7	1249.2	209.6	142.0	96.7	65.9	54.6	48.4	43.7	40.3	40.2
72.5°	1502.7	833.5	179.1	122.4	79.4	55.8	47.8	43.1	39.3	37.1	37.1
75°	792.9	417.7	146.7	100.0	61.3	44.5	39.3	36.2	34.0	33.7	33.4
77.5°	259.8	189.0	105.6	75.3	45.0	34.7	31.4	29.4	29.1	30.3	30.3
80°	140.3	112.8	67.8	50.8	31.4	25.8	24.2	23.9	24.8	26.4	26.4
82.5°	68.1	55.8	40.3	31.4	21.4	19.0	19.0	19.3	20.3	22.3	22.3
85°	29.4	26.4	23.4	17.5	13.1	11.8	13.5	14.8	15.7	17.1	17.5
87.5°	14.1	12.3	10.7	6.8	5.7	6.1	7.1	8.9	10.4	11.6	11.8
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)