

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: P196579

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-7030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196579
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24257)
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-SL2-7030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6354.5 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

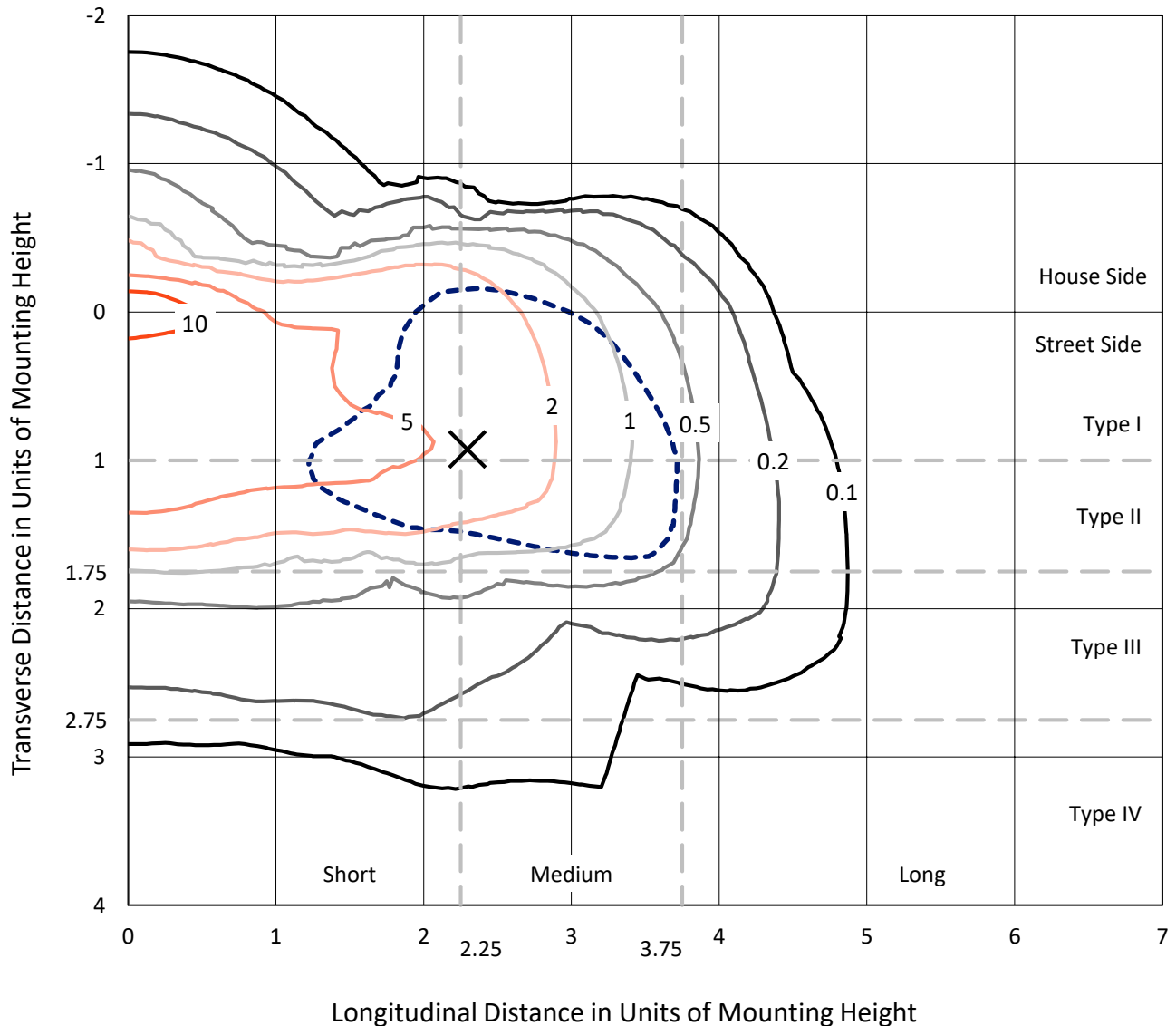
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

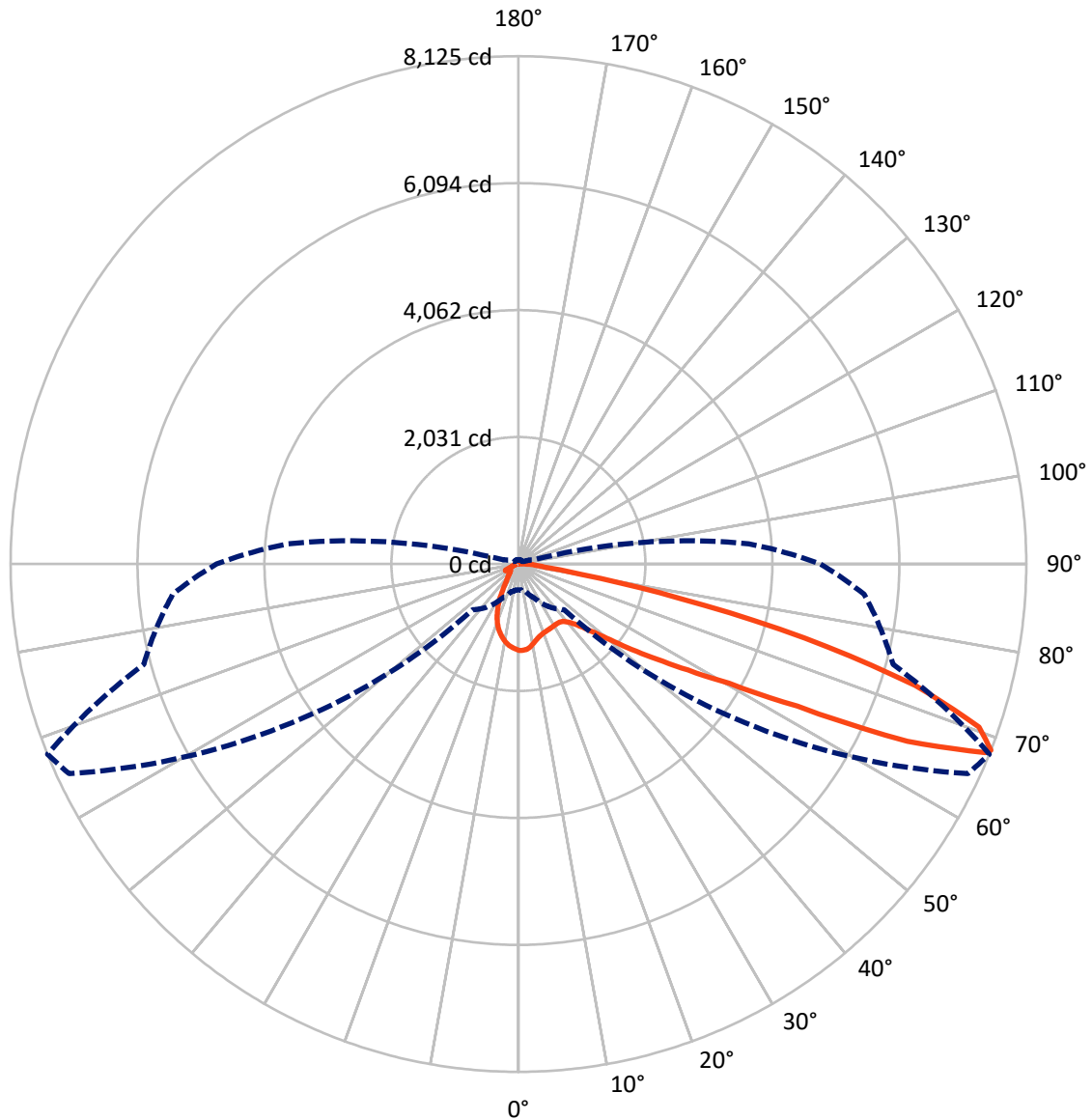
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.8 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1039.6	0.0	1039.6
	% Fixture	16.4	0.0	16.4
Street Side	Lumens	5314.9	0.0	5314.9
	% Fixture	83.6	0.0	83.6
Total	Lumens	6354.5	0.0	6354.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.5	1.9
10°-20°	274.8	4.3
20°-30°	371.6	5.8
30°-40°	524.0	8.2
40°-50°	861.6	13.6
50°-60°	1335.6	21.0
60°-70°	1731.7	27.3
70°-80°	993.7	15.6
80°-90°	143.0	2.3
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°	6354.5	100.0
0°-180°	6354.5	100.0

Coefficient of Utilization



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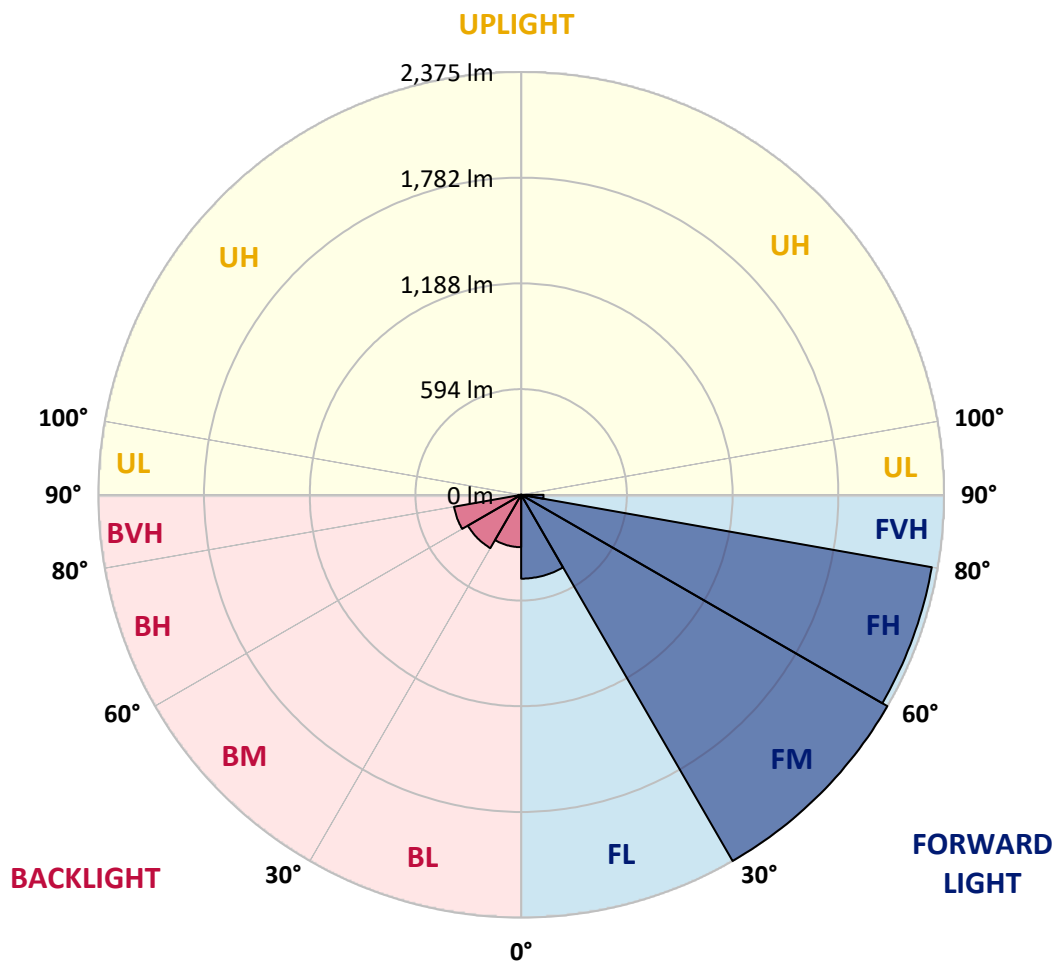
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	471.0	7.4			
FM (30°-60°)	2375.4	37.4			
FH (60°-80°)	2342.6	36.9			G2/5000
FVH (80°-90°)	125.9	2.0			G2/225
BL (0°-30°)	293.9	4.6	B1/500		
BM (30°-60°)	345.8	5.4	B1/1000		
BH (60°-80°)	382.9	6.0	B1/500		G1/500
BVH (80°-90°)	17.1	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	1382.6	1382.6	1382.6	1382.6	1382.6	1382.6	1382.6	1382.6	1382.6	1382.6	1382.6
2.5°	1345.7	1356.6	1356.6	1364.4	1371.5	1377.3	1382.2	1382.2	1382.2	1379.0	1376.0
5°	1204.1	1218.7	1220.8	1240.7	1266.9	1298.9	1334.5	1366.1	1372.3	1383.9	1388.4
7.5°	1105.8	1110.4	1118.3	1131.9	1158.5	1197.9	1254.0	1324.5	1341.6	1378.1	1397.2
10°	1036.1	1039.8	1046.4	1060.2	1084.2	1119.9	1175.2	1266.9	1295.0	1359.8	1397.7
12.5°	985.0	987.9	994.1	1006.6	1031.1	1063.1	1119.5	1215.0	1249.8	1341.6	1403.4
15°	945.2	950.1	955.2	967.2	992.1	1022.7	1080.0	1177.2	1215.0	1327.1	1414.3
17.5°	929.4	931.9	932.7	939.0	961.4	992.5	1049.8	1150.6	1189.7	1315.5	1422.5
20°	939.4	939.7	931.4	927.3	940.1	968.8	1024.5	1130.8	1170.6	1305.1	1425.9
22.5°	982.9	982.9	961.4	943.1	934.3	952.2	1007.5	1117.0	1160.3	1297.1	1425.9
25°	1066.0	1062.2	1028.5	992.5	954.0	946.4	996.7	1108.3	1152.3	1293.0	1420.5
27.5°	1175.2	1171.8	1129.0	1075.5	1005.7	958.9	992.9	1101.3	1144.4	1286.7	1408.8
30°	1308.0	1305.1	1256.5	1186.3	1083.5	998.3	1001.6	1096.3	1138.2	1276.4	1389.3
32.5°	1440.4	1438.7	1400.1	1328.3	1190.5	1065.2	1024.5	1095.5	1134.8	1264.0	1365.6
35°	1573.7	1573.7	1550.0	1489.3	1334.5	1165.6	1072.2	1110.8	1141.1	1257.3	1345.3
37.5°	1770.4	1762.5	1718.5	1655.9	1516.0	1296.0	1149.4	1143.2	1165.1	1268.5	1338.7
40°	2075.1	2052.2	1942.2	1836.7	1714.0	1462.8	1262.3	1205.9	1219.2	1306.7	1354.5
42.5°	2393.9	2357.7	2212.1	2043.4	1918.6	1668.7	1410.5	1307.5	1307.2	1380.6	1404.6
45°	2667.4	2648.8	2491.0	2277.2	2152.3	1900.3	1597.7	1458.6	1443.8	1495.2	1501.4
47.5°	2826.4	2814.0	2718.9	2524.7	2429.6	2173.8	1835.1	1668.3	1640.1	1670.8	1661.2
50°	2782.4	2794.5	2767.0	2667.8	2727.5	2558.2	2137.7	1955.5	1901.9	1932.7	1909.5
52.5°	2550.7	2583.1	2607.7	2626.7	2899.0	3072.6	2518.0	2314.1	2269.8	2264.4	2241.9
55°	2133.7	2185.0	2262.3	2402.6	2853.0	3485.6	3182.1	2748.0	2683.2	2649.1	2657.8
57.5°	1452.0	1530.0	1696.5	1963.4	2613.5	3661.6	4164.2	3308.4	3198.8	3077.5	3105.8
60°	799.9	865.2	1063.1	1332.1	2066.7	3635.4	5034.6	4219.0	3874.2	3552.8	3610.9
62.5°	517.7	531.8	679.0	909.9	1268.5	3209.5	5518.2	5741.2	5010.2	4179.6	4261.3
65°	415.9	425.9	498.1	733.9	883.7	2064.7	5539.9	7320.3	6838.3	5031.4	5033.9
67.5°	406.3	411.0	452.9	617.2	829.0	1124.1	4788.5	7942.8	8054.5	6036.8	5550.7
68°	412.2	417.6	460.0	598.2	828.5	1036.1	4425.8	7933.4	8124.7	6204.9	5550.7
70°	363.7	370.3	469.0	619.0	793.2	890.8	3030.7	7512.0	7820.0	6591.3	5266.8
72.5°	190.1	184.7	232.0	488.6	892.8	928.1	1600.9	6275.9	6635.4	6104.5	4550.3
75°	148.1	134.9	129.9	193.1	785.3	962.6	929.8	4460.6	4732.1	4400.4	3041.4
77.5°	139.6	123.3	113.7	114.1	345.8	1001.6	752.1	2625.1	2625.1	2099.1	970.6
80°	112.1	97.1	90.9	103.8	166.8	923.1	784.9	1196.3	1020.3	542.6	267.3
82.5°	73.9	66.0	66.4	84.2	126.6	616.4	909.0	590.6	443.7	240.4	157.4
85°	46.9	40.3	44.8	58.9	94.6	274.8	900.0	410.5	293.9	134.9	78.4
87.5°	23.7	18.2	22.4	30.7	57.7	78.8	741.0	366.6	218.0	56.0	42.7
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°	1382.6	1382.6	1382.6	1382.6	1382.6	1382.6	1382.6	1382.6	1382.6	1382.6	1382.6
2.5°	1376.0	1367.0	1362.4	1355.0	1345.7	1336.6	1330.3	1327.5	1325.9	1326.6	1326.2
5°	1386.0	1373.9	1354.5	1326.6	1298.0	1267.7	1244.5	1226.7	1215.4	1212.1	1211.2
7.5°	1393.5	1376.0	1339.5	1288.8	1239.9	1186.8	1141.5	1105.3	1080.9	1069.7	1069.3
10°	1392.2	1369.8	1312.1	1237.4	1165.6	1087.5	1016.5	956.0	912.0	890.8	889.9
12.5°	1393.5	1362.8	1278.6	1177.2	1074.2	962.6	857.1	762.9	697.4	666.3	665.0
15°	1398.4	1355.3	1244.0	1110.0	967.6	809.8	659.2	540.9	481.1	460.7	460.7
17.5°	1398.1	1342.8	1204.1	1032.0	841.0	629.7	449.9	377.0	371.1	389.7	392.7
20°	1389.8	1322.9	1152.6	939.4	692.3	435.8	305.1	294.7	341.2	392.7	398.5
22.5°	1376.8	1297.1	1093.3	831.9	519.3	284.0	235.4	251.2	314.2	378.1	387.4
25°	1359.0	1266.1	1025.3	706.9	345.4	204.2	196.3	215.9	260.2	302.9	309.6
27.5°	1332.9	1226.7	951.0	571.5	220.3	168.2	171.0	184.7	203.8	222.2	225.8
30°	1300.0	1180.5	870.0	421.7	167.2	150.2	155.2	163.6	171.9	183.4	186.0
32.5°	1266.9	1133.7	785.8	289.7	146.1	140.7	145.8	150.2	157.4	165.2	166.8
35°	1237.1	1090.1	699.0	202.1	137.0	134.5	137.0	139.9	147.0	154.8	155.7
37.5°	1215.4	1054.4	608.6	159.8	131.5	129.2	130.3	131.5	139.9	151.6	152.8
40°	1212.4	1030.7	516.8	143.6	127.4	124.1	123.3	124.1	134.9	148.1	149.4
42.5°	1240.7	1032.0	427.1	137.0	124.1	120.4	117.0	118.8	128.3	138.6	139.6
45°	1307.5	1061.0	349.5	134.1	121.2	118.3	113.3	114.1	118.8	124.1	125.0
47.5°	1425.4	1124.5	290.2	132.4	118.8	116.3	110.1	107.5	107.9	110.8	110.8
50°	1613.9	1230.8	254.0	130.8	116.7	112.1	105.0	100.1	98.8	100.4	100.8
52.5°	1894.9	1412.9	236.6	127.4	112.9	106.6	98.8	93.9	91.8	93.4	93.4
55°	2274.8	1704.0	228.4	122.9	108.3	100.1	93.0	88.8	87.2	88.4	88.4
57.5°	2707.7	2082.2	242.4	116.7	102.4	93.0	88.0	85.1	83.8	85.1	85.5
60°	3221.9	2576.9	339.6	108.7	96.2	86.8	83.8	82.2	81.4	82.6	82.6
62.5°	3905.7	3235.2	525.5	102.4	89.7	81.0	80.1	79.3	78.4	79.6	79.6
65°	4643.7	3834.2	540.9	98.8	83.8	75.9	76.4	76.4	75.5	76.8	76.8
67.5°	4878.7	3782.3	302.2	94.2	76.8	71.0	72.6	72.6	72.2	73.4	73.1
68°	4828.8	3700.2	263.2	93.0	75.5	69.7	71.3	71.8	71.3	72.6	72.2
70°	4457.7	3248.5	173.0	85.9	70.2	65.5	68.1	68.5	68.1	69.7	69.3
72.5°	3679.9	2436.6	127.9	75.2	63.5	60.2	62.8	63.1	63.5	65.1	64.8
75°	2336.9	1345.7	100.8	63.9	56.9	54.0	56.5	57.7	58.6	60.9	59.8
77.5°	640.0	408.4	81.7	54.4	48.9	47.7	49.3	51.1	51.9	54.7	52.7
80°	224.2	180.6	68.1	46.1	40.7	40.3	41.9	43.6	44.5	46.9	44.5
82.5°	136.1	117.9	54.4	36.2	32.0	31.5	33.7	35.3	36.2	36.2	34.4
85°	71.0	62.3	39.9	25.3	22.0	20.8	24.5	26.6	27.0	26.6	25.3
87.5°	39.9	35.3	21.2	12.0	10.0	10.4	12.9	15.8	17.1	16.6	15.8
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)