

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: P197323

Luminaire Tested: **NAV-AF-01-D-UNV-T4FT-8030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197323
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24256)
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-T4FT-8030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5511 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

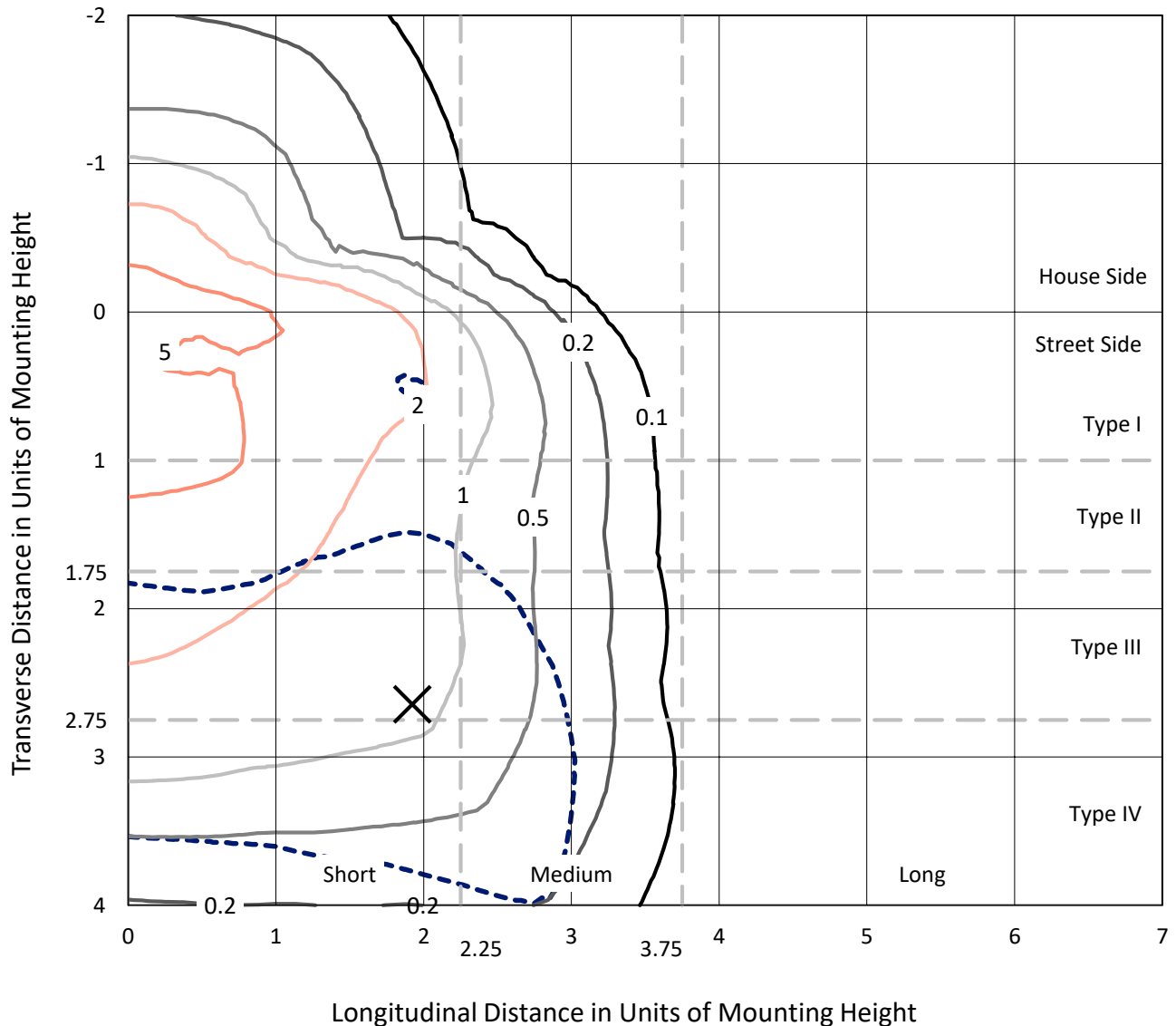
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

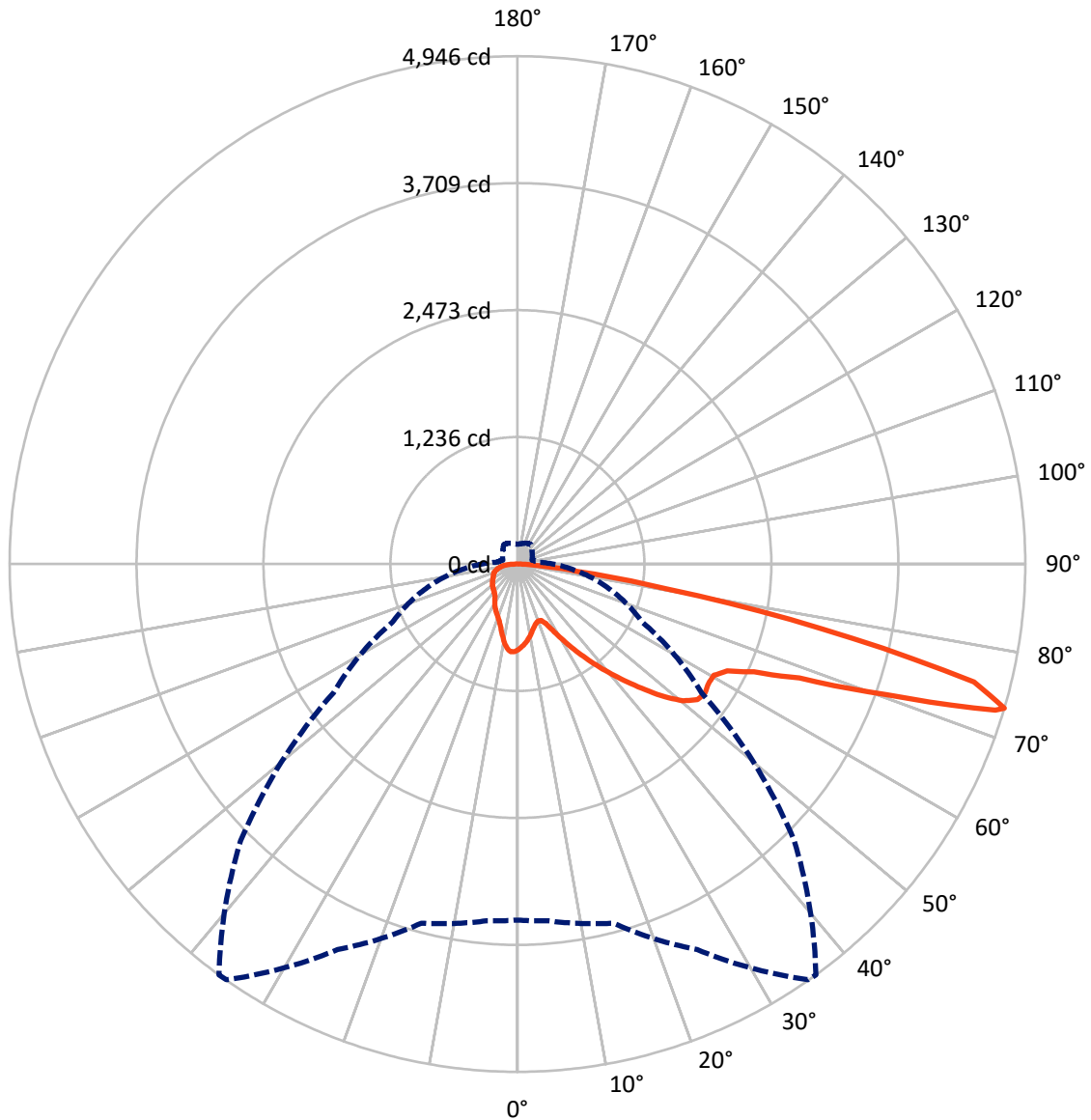
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.3 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1062.7	0.0	1062.7
	% Fixture	19.3	0.0	19.3
Street Side	Lumens	4448.3	0.0	4448.3
	% Fixture	80.7	0.0	80.7
Total	Lumens	5511.0	0.0	5511.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.8	1.4
10°-20°	190.4	3.5
20°-30°	305.3	5.5
30°-40°	505.0	9.2
40°-50°	781.4	14.2
50°-60°	1046.1	19.0
60°-70°	1366.5	24.8
70°-80°	1116.2	20.3
80°-90°	124.2	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°	5511.0	100.0
0°-180°	5511.0	100.0



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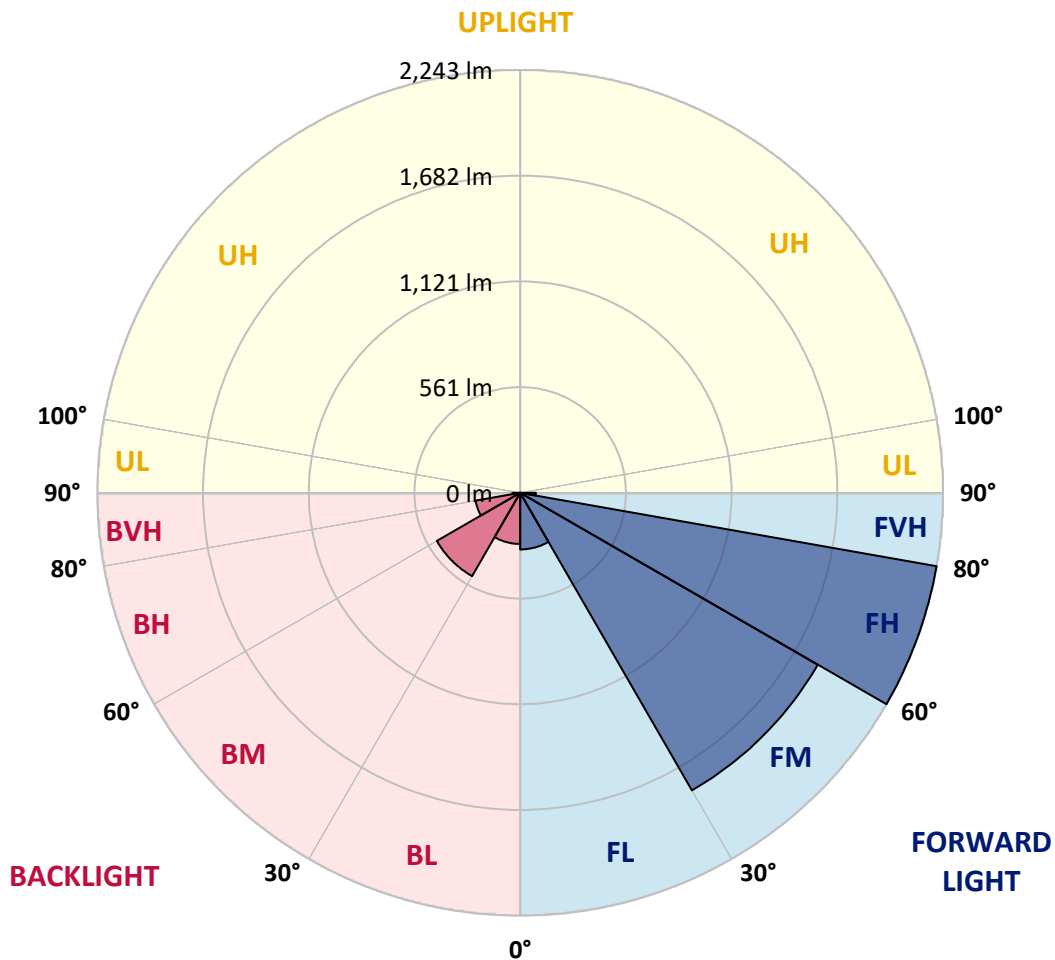
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	300.3	5.4			
FM (30°-60°)	1822.1	33.1			
FH (60°-80°)	2242.6	40.7			G2/5000
FVH (80°-90°)	83.3	1.5			G1/100
BL (0°-30°)	271.3	4.9	B1/500		
BM (30°-60°)	510.4	9.3	B1/1000		
BH (60°-80°)	240.1	4.4	B1/500		G1/500
BVH (80°-90°)	40.9	0.7			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	834.8	834.8	834.8	834.8	834.8	834.8	834.8	834.8	834.8	834.8	834.8
2.5°	802.9	805.0	805.3	807.8	807.8	807.4	808.5	812.7	814.8	819.7	823.9
5°	763.3	765.8	766.8	771.0	776.3	776.6	780.5	788.5	796.2	807.1	816.2
7.5°	718.9	721.7	724.5	733.2	740.9	741.6	749.0	761.9	772.1	785.4	801.8
10°	675.8	676.5	679.3	690.5	700.6	701.7	712.2	726.9	740.6	759.1	777.7
12.5°	640.4	642.5	641.8	650.2	659.0	659.7	673.7	692.2	712.2	733.2	755.3
15°	628.2	627.8	620.5	620.1	624.0	624.7	638.3	660.0	682.4	708.4	736.7
17.5°	636.6	633.8	614.5	602.6	600.2	600.9	611.0	634.8	658.6	688.4	722.4
20°	682.8	671.9	626.8	598.1	590.0	590.0	596.0	615.2	641.5	676.1	718.9
22.5°	792.4	775.6	679.3	628.2	599.8	597.0	592.5	607.2	636.2	677.9	733.2
25°	930.3	922.3	775.6	708.4	649.9	640.8	610.7	615.9	647.1	696.8	772.4
27.5°	1058.2	1044.1	902.0	825.0	742.3	728.3	664.6	643.2	673.0	731.8	829.2
30°	1132.7	1123.3	1031.9	958.4	860.0	842.1	750.7	697.1	719.2	789.6	909.7
32.5°	1214.0	1208.4	1162.1	1095.3	987.4	966.8	862.1	785.0	789.9	866.3	1006.7
35°	1292.8	1300.1	1273.8	1224.8	1124.7	1105.4	1011.6	899.9	877.1	952.4	1110.3
37.5°	1387.3	1389.0	1372.6	1340.7	1268.9	1253.2	1175.8	1022.4	972.0	1044.1	1210.5
40°	1576.0	1548.4	1483.9	1458.7	1416.0	1406.2	1318.0	1134.8	1060.3	1138.3	1305.0
42.5°	1780.2	1737.1	1636.2	1594.9	1577.8	1568.7	1436.3	1209.8	1142.9	1232.5	1397.8
45°	1944.7	1909.7	1811.0	1759.9	1762.0	1747.2	1539.6	1276.6	1232.5	1327.1	1501.4
47.5°	2106.8	2048.4	1937.7	1930.4	1954.9	1933.2	1638.3	1343.5	1326.0	1430.0	1605.1
50°	2117.4	2064.1	2019.3	2078.1	2120.2	2093.2	1728.0	1431.1	1423.0	1554.7	1738.8
52.5°	1989.5	1981.8	2050.1	2149.2	2218.9	2194.7	1801.2	1521.0	1522.1	1710.5	1901.7
55°	1943.0	1933.2	2015.1	2137.0	2231.2	2216.8	1855.8	1622.6	1632.0	1899.6	2076.4
57.5°	2021.4	1996.9	2013.0	2113.9	2202.4	2194.0	1912.5	1735.3	1752.5	2117.4	2237.8
60°	2264.8	2214.7	2129.3	2148.2	2203.5	2198.6	1993.8	1861.0	1889.8	2344.3	2340.0
62.5°	2629.3	2572.5	2398.5	2314.5	2302.2	2292.8	2127.9	2015.5	2029.8	2508.1	2280.5
65°	3029.1	2968.2	2761.3	2623.7	2551.5	2531.2	2344.3	2201.7	2111.8	2507.8	2048.7
67.5°	3478.0	3413.6	3207.4	3076.1	2998.0	2963.3	2695.5	2352.3	2085.1	2295.6	1639.4
70°	3937.8	3876.5	3782.0	3827.8	3862.1	3809.3	3248.7	2402.4	1894.0	1799.8	1100.9
72.5°	3693.7	3688.8	3760.6	4195.5	4856.9	4867.4	3801.2	2260.9	1463.3	1069.7	586.9
73°	3467.2	3487.8	3620.9	4141.2	4942.0	4945.5	3812.1	2187.7	1343.5	921.6	515.4
75°	1796.3	1936.3	2430.0	3357.9	4576.1	4592.6	3360.4	1656.2	800.8	511.9	347.3
77.5°	481.1	474.8	782.9	1635.9	3050.9	3029.1	2123.3	801.8	383.8	321.1	243.7
80°	164.9	167.0	266.5	598.4	1424.1	1474.8	921.6	349.8	252.5	223.7	172.6
82.5°	84.0	86.8	139.4	254.6	595.6	583.0	296.6	205.9	169.1	135.9	96.6
85°	44.8	46.2	76.7	132.0	218.5	220.9	104.3	109.9	107.5	77.0	47.6
87.5°	22.1	22.8	36.8	58.1	80.9	78.1	36.4	47.6	52.9	43.4	26.3
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°	834.8	834.8	834.8	834.8	834.8	834.8	834.8	834.8	834.8	834.8	834.8
2.5°	829.2	829.2	833.7	841.4	847.0	852.3	855.8	861.4	864.5	864.2	863.8
5°	823.6	827.1	836.2	845.6	851.9	856.1	856.1	858.6	858.6	857.5	856.1
7.5°	810.6	816.5	829.9	838.3	840.0	835.5	826.4	819.3	810.6	806.0	804.3
10°	789.9	797.6	814.4	818.3	809.2	793.1	771.0	752.1	735.3	727.6	725.2
12.5°	769.6	779.8	795.5	789.6	767.9	736.4	702.4	676.5	657.6	650.2	647.8
15°	752.8	765.1	777.3	758.8	721.0	677.2	639.7	615.6	601.2	595.6	594.2
17.5°	741.6	756.0	760.2	725.5	673.0	624.0	590.7	574.9	568.6	566.2	565.5
20°	742.3	758.4	748.3	693.3	626.8	577.4	555.3	550.8	550.8	550.8	550.4
22.5°	761.6	775.6	743.4	663.2	582.3	538.2	528.7	532.6	535.4	535.4	535.0
25°	801.5	809.2	746.9	634.1	540.6	504.2	504.6	511.9	514.4	514.4	513.7
27.5°	862.4	856.1	753.2	601.9	499.7	473.4	478.3	485.0	486.7	485.7	485.3
30°	938.8	913.5	758.4	564.1	461.1	444.7	448.9	452.7	451.3	448.9	448.5
32.5°	1024.2	972.0	755.3	521.7	427.2	414.9	417.4	419.5	417.4	411.4	411.4
35°	1108.9	1024.9	738.1	475.5	400.2	386.2	385.9	392.5	392.2	385.2	385.5
37.5°	1183.2	1066.6	704.9	433.1	377.1	365.2	366.6	370.8	372.9	363.5	362.4
40°	1247.9	1095.3	657.9	397.1	358.6	359.3	355.4	348.7	346.3	342.1	341.4
42.5°	1308.9	1115.2	608.2	367.0	349.1	357.2	344.2	328.4	321.8	325.6	328.1
45°	1368.7	1137.6	560.2	342.1	337.2	350.8	333.0	315.5	307.8	309.5	312.0
47.5°	1441.9	1168.8	502.5	315.5	319.0	339.3	326.0	307.1	295.5	288.5	286.4
50°	1538.2	1214.0	427.5	286.8	299.7	326.7	320.0	294.8	282.2	268.2	264.7
52.5°	1658.7	1256.7	351.9	263.7	284.0	315.8	310.2	284.3	268.9	252.1	249.3
55°	1778.8	1262.6	286.8	243.7	266.1	301.1	298.3	275.9	254.2	240.6	237.8
57.5°	1862.8	1206.3	243.0	226.9	249.0	282.9	287.5	265.8	242.0	231.4	229.7
60°	1864.2	1071.5	216.4	215.7	236.0	267.2	276.3	253.9	234.2	227.2	225.8
62.5°	1716.1	863.5	199.2	207.3	226.5	254.2	267.9	247.2	232.5	229.7	228.3
65°	1438.4	638.0	185.6	199.6	217.8	243.4	260.9	245.1	231.8	230.7	229.7
67.5°	1062.0	437.3	174.0	189.8	208.0	232.1	254.2	242.0	227.6	231.8	230.4
70°	668.1	292.0	163.2	178.6	195.0	219.2	245.5	236.4	222.3	219.9	215.3
72.5°	377.1	211.1	150.2	164.2	178.2	202.0	233.5	226.9	210.4	200.6	196.1
73°	340.7	199.9	147.1	160.7	174.4	198.5	230.7	224.1	206.9	196.1	191.9
75°	249.3	163.5	132.7	146.4	158.3	182.4	217.4	210.1	191.5	178.6	175.8
77.5°	180.7	126.1	114.1	126.4	136.9	160.0	197.5	189.1	170.9	163.9	161.1
80°	130.3	95.6	94.5	106.4	115.5	139.0	176.1	167.4	149.9	170.5	166.0
82.5°	77.7	61.3	69.3	82.6	92.1	116.6	153.0	142.9	126.1	127.5	108.5
85°	37.1	34.7	43.1	54.3	60.9	79.8	127.5	119.4	100.8	82.6	80.9
87.5°	16.5	15.8	20.7	24.2	32.6	48.0	87.2	77.4	73.2	43.8	34.3
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)