

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: P270313

Luminaire Tested: **NAV-AF-01-D-UNV-T4FT-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270313
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-7027
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1050mA 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: 5349.1 lumens
Efficiency: N/A
Efficacy: 90.7 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

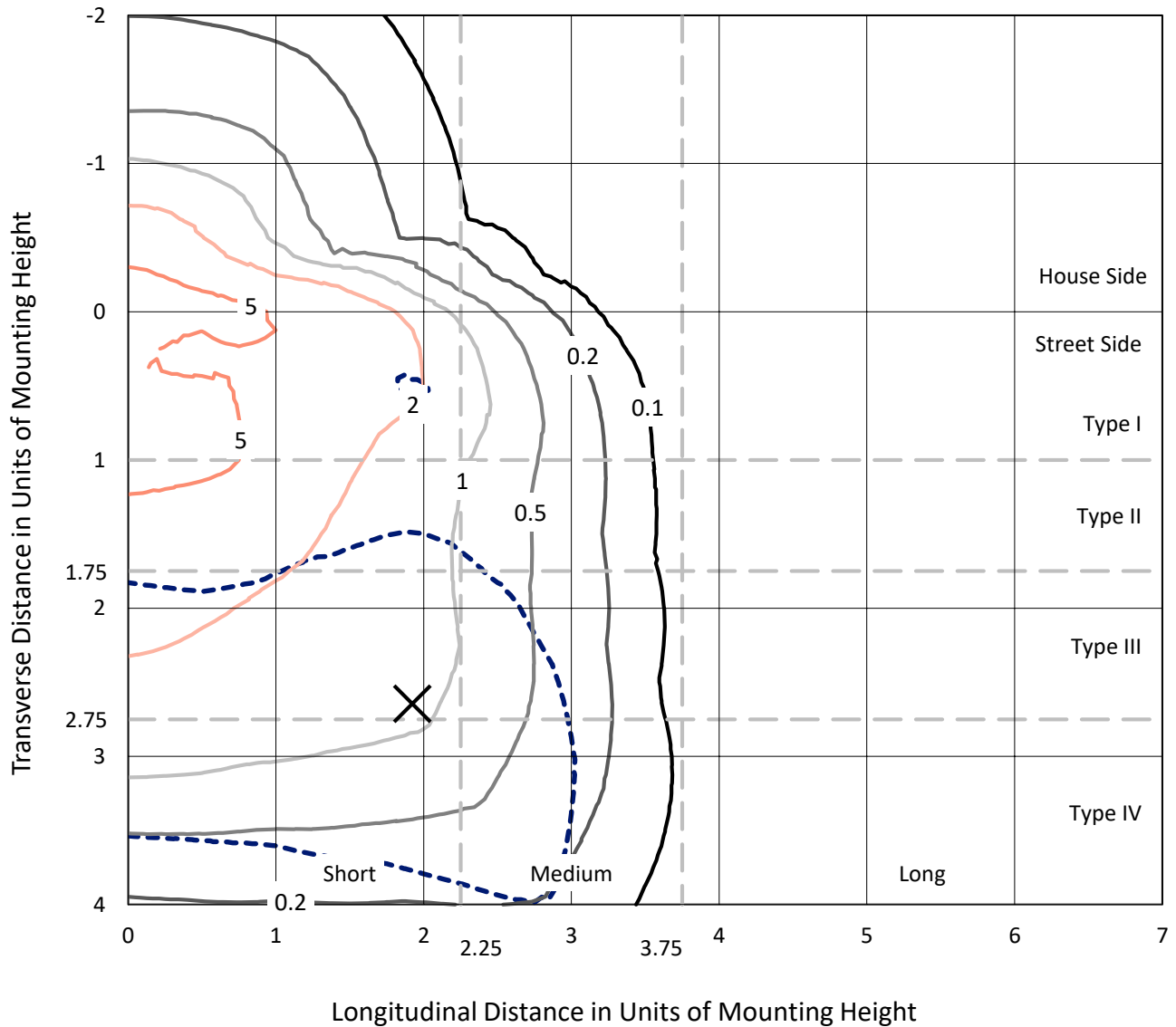
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

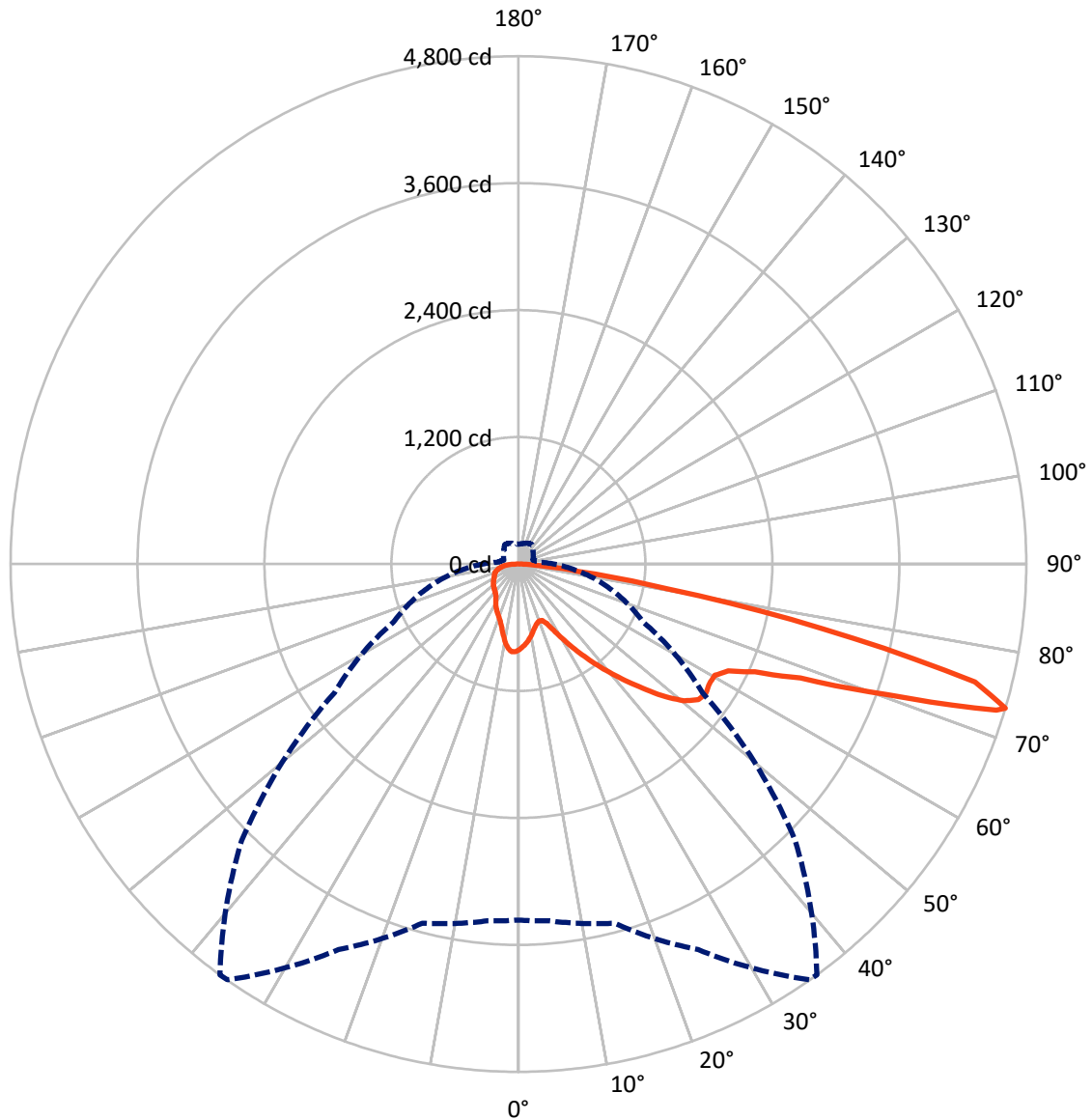
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.1 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	1031.5	0.0	1031.5
	% Fixture	19.3	0.0	19.3
Street Side	Lumens	4317.6	0.0	4317.6
	% Fixture	80.7	0.0	80.7
Total	Lumens	5349.1	0.0	5349.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.6	1.4
10°-20°	184.8	3.5
20°-30°	296.3	5.5
30°-40°	490.1	9.2
40°-50°	758.5	14.2
50°-60°	1015.3	19.0
60°-70°	1326.4	24.8
70°-80°	1083.4	20.3
80°-90°	120.6	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°	5349.1	100.0
0°-180°	5349.1	100.0



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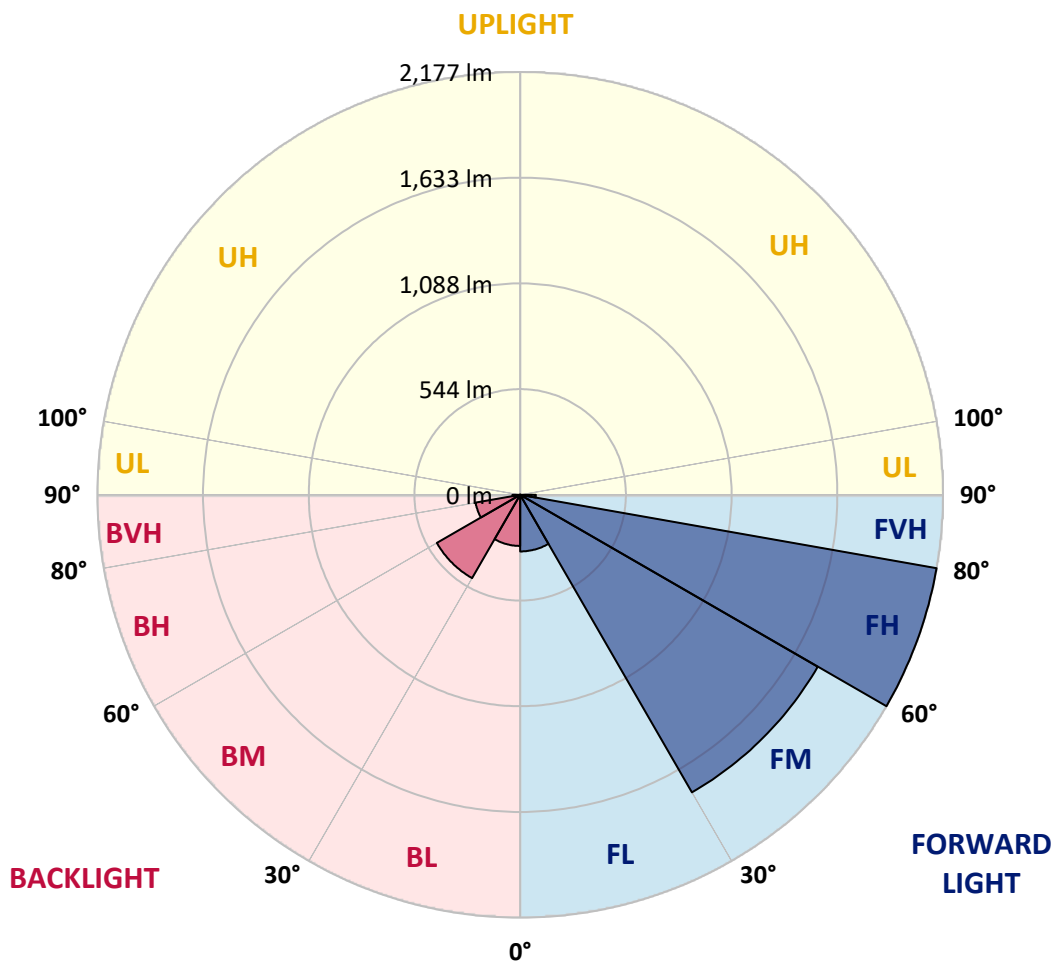
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	291.5	5.4			
FM (30°-60°)	1768.6	33.1			
FH (60°-80°)	2176.7	40.7			G2/5000
FVH (80°-90°)	80.9	1.5			G1/100
BL (0°-30°)	263.3	4.9	B1/500		
BM (30°-60°)	495.4	9.3	B1/1000		
BH (60°-80°)	233.1	4.4	B1/500		G1/500
BVH (80°-90°)	39.7	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°	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2
2.5°	779.3	781.3	781.6	784.1	784.1	783.7	784.7	788.8	790.9	795.5	799.8
5°	740.9	743.3	744.2	748.4	753.5	753.8	757.5	765.4	772.8	783.4	792.2
7.5°	697.8	700.5	703.2	711.6	719.2	719.8	727.0	739.6	749.4	762.3	778.3
10°	655.9	656.7	659.4	670.2	680.0	681.0	691.2	705.6	718.9	736.8	754.8
12.5°	621.5	623.7	623.0	631.1	639.7	640.3	653.8	671.9	691.2	711.6	733.0
15°	609.7	609.4	602.3	602.0	605.6	606.4	619.7	640.6	662.4	687.6	715.1
17.5°	617.9	615.2	596.5	584.8	582.6	583.2	593.1	616.1	639.2	668.2	701.1
20°	662.7	652.2	608.3	580.5	572.7	572.7	578.5	597.2	622.6	656.3	697.8
22.5°	769.0	752.8	659.4	609.7	582.2	579.4	575.0	589.3	617.6	658.0	711.6
25°	902.9	895.3	752.8	687.6	630.8	621.9	592.7	597.8	628.0	676.3	749.7
27.5°	1027.0	1013.5	875.5	800.7	720.5	706.8	645.1	624.3	653.2	710.3	804.8
30°	1099.4	1090.3	1001.6	930.3	834.6	817.4	728.6	676.7	698.1	766.3	882.9
32.5°	1178.2	1172.8	1128.0	1063.1	958.4	938.4	836.7	761.9	766.8	840.9	977.0
35°	1254.8	1261.8	1236.3	1188.8	1091.6	1072.9	981.8	873.4	851.4	924.4	1077.6
37.5°	1346.5	1348.3	1332.2	1301.4	1231.7	1216.3	1141.2	992.4	943.5	1013.5	1175.0
40°	1529.8	1502.9	1440.3	1415.9	1374.3	1364.9	1279.2	1101.5	1029.1	1104.8	1266.7
42.5°	1727.9	1686.1	1588.2	1548.0	1531.4	1522.5	1394.1	1174.3	1109.2	1196.4	1356.7
45°	1887.6	1853.7	1757.8	1708.1	1710.2	1695.9	1494.4	1239.1	1196.4	1288.1	1457.3
47.5°	2044.9	1988.2	1880.8	1873.7	1897.4	1876.4	1590.2	1304.1	1287.0	1388.1	1557.9
50°	2055.1	2003.5	1960.0	2017.1	2057.8	2031.6	1677.2	1389.0	1381.2	1509.1	1687.7
52.5°	1931.0	1923.6	1989.8	2086.0	2153.6	2130.2	1748.2	1476.4	1477.4	1660.2	1845.7
55°	1885.9	1876.4	1955.9	2074.1	2165.6	2151.7	1801.3	1574.9	1584.2	1843.7	2015.3
57.5°	1962.0	1938.3	1953.9	2051.8	2137.7	2129.6	1856.3	1684.3	1701.0	2055.1	2172.0
60°	2198.2	2149.6	2066.7	2085.1	2138.8	2134.1	1935.2	1806.3	1834.2	2275.3	2271.3
62.5°	2552.1	2497.0	2328.0	2246.5	2234.5	2225.5	2065.4	1956.2	1970.2	2434.4	2213.6
65°	2940.2	2881.0	2680.2	2546.5	2476.5	2456.9	2275.3	2137.1	2049.8	2434.0	1988.5
67.5°	3375.8	3313.3	3113.2	2985.6	2909.9	2876.3	2616.3	2283.2	2023.9	2228.2	1591.3
70°	3822.1	3762.6	3670.8	3715.4	3748.6	3697.3	3153.2	2331.8	1838.3	1746.8	1068.5
72.5°	3585.1	3580.5	3650.2	4072.2	4714.2	4724.5	3689.5	2194.5	1420.3	1038.4	569.6
73°	3365.3	3385.4	3514.4	4019.6	4796.8	4800.3	3700.1	2123.5	1304.1	894.5	500.3
75°	1743.5	1879.4	2358.6	3259.3	4441.7	4457.6	3261.7	1607.5	777.3	496.9	337.1
77.5°	466.9	460.8	760.0	1587.8	2961.3	2940.2	2060.9	778.3	372.4	311.6	236.6
80°	160.1	162.1	258.6	580.8	1382.2	1431.4	894.5	339.5	245.1	217.2	167.5
82.5°	81.6	84.4	135.3	247.0	578.1	565.8	287.8	199.9	164.2	132.0	93.9
85°	43.5	44.8	74.4	128.1	212.1	214.4	101.2	106.7	104.4	74.7	46.3
87.5°	21.4	22.1	35.8	56.5	78.5	75.7	35.4	46.3	51.4	42.1	25.5
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°	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2	810.2
2.5°	804.8	804.8	809.3	816.6	822.0	827.2	830.7	836.1	839.0	838.7	838.5
5°	799.3	802.7	811.6	820.8	826.9	830.9	830.9	833.4	833.4	832.3	830.9
7.5°	786.7	792.6	805.5	813.7	815.3	810.9	802.0	795.3	786.7	782.3	780.6
10°	766.8	774.2	790.5	794.2	785.4	769.8	748.4	730.1	713.8	706.2	703.8
12.5°	747.0	756.9	772.2	766.3	745.4	714.7	681.8	656.7	638.2	631.1	628.8
15°	730.7	742.5	754.4	736.5	699.8	657.3	620.9	597.5	583.5	578.1	576.7
17.5°	719.8	733.7	737.9	704.2	653.2	605.6	573.4	558.0	551.9	549.6	548.9
20°	720.5	736.2	726.3	672.9	608.3	560.5	539.1	534.6	534.6	534.6	534.2
22.5°	739.1	752.8	721.5	643.6	565.3	522.4	513.2	517.0	519.7	519.7	519.3
25°	777.9	785.4	724.9	615.5	524.7	489.3	489.8	496.9	499.3	499.3	498.6
27.5°	837.1	830.9	731.0	584.2	484.9	459.6	464.2	470.7	472.4	471.4	471.0
30°	911.2	886.6	736.2	547.4	447.5	431.6	435.7	439.5	438.1	435.7	435.4
32.5°	994.2	943.5	733.0	506.4	414.7	402.7	405.1	407.1	405.1	399.3	399.3
35°	1076.3	994.8	716.4	461.5	388.4	374.9	374.6	381.1	380.6	373.9	374.1
37.5°	1148.5	1035.1	684.1	420.3	366.0	354.6	355.8	360.0	361.9	352.8	351.7
40°	1211.3	1063.1	638.5	385.5	348.1	348.7	344.9	338.5	336.1	332.1	331.4
42.5°	1270.5	1082.5	590.4	356.2	338.8	346.7	334.1	318.8	312.3	316.1	318.4
45°	1328.6	1104.1	543.7	332.1	327.3	340.5	323.2	306.2	298.7	300.5	302.8
47.5°	1399.6	1134.5	487.7	306.2	309.6	329.3	316.5	298.1	286.9	280.0	278.0
50°	1493.1	1178.2	414.9	278.4	291.0	317.1	310.6	286.2	274.0	260.2	256.9
52.5°	1609.9	1219.8	341.5	255.8	275.6	306.5	301.1	276.0	261.0	244.7	242.0
55°	1726.5	1225.6	278.4	236.6	258.4	292.3	289.6	267.9	246.8	233.5	230.8
57.5°	1808.1	1170.9	235.9	220.3	241.6	274.6	279.1	258.0	234.8	224.7	223.0
60°	1809.5	1040.0	210.1	209.3	229.1	259.3	268.1	246.3	227.5	220.5	219.1
62.5°	1665.6	838.1	193.3	201.2	219.8	246.8	260.0	239.9	225.7	223.0	221.6
65°	1396.1	619.2	180.1	193.8	211.5	236.3	253.2	238.0	224.9	223.9	223.0
67.5°	1030.7	424.4	168.9	184.2	201.8	225.4	246.8	234.8	221.0	224.9	223.6
70°	648.4	283.4	158.5	173.4	189.4	212.8	238.2	229.3	215.9	213.4	209.0
72.5°	366.0	205.0	145.9	159.4	173.1	196.1	226.7	220.3	204.3	194.8	190.4
73°	330.7	194.0	142.7	155.9	169.2	192.6	223.9	217.5	200.9	190.4	186.3
75°	242.0	158.7	128.7	142.0	153.6	177.1	211.0	203.9	185.9	173.4	170.6
77.5°	175.3	122.3	110.9	122.7	132.9	155.2	191.7	183.6	165.8	159.1	156.3
80°	126.4	92.7	91.7	103.3	112.2	134.9	170.9	162.5	145.4	165.5	161.1
82.5°	75.5	59.5	67.4	80.2	89.4	113.1	148.5	138.7	122.3	123.6	105.3
85°	36.0	33.6	41.9	52.7	59.2	77.6	123.6	115.9	97.8	80.2	78.5
87.5°	16.0	15.4	20.0	23.4	31.6	46.5	84.6	75.1	71.1	42.5	33.2
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)