

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: P195355

Luminaire Tested: **NAV-AF-01-D-UNV-T3-7060-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195355
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)
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-T3-7060-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5700K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6704 lumens
Efficiency: N/A
Efficacy: 100.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

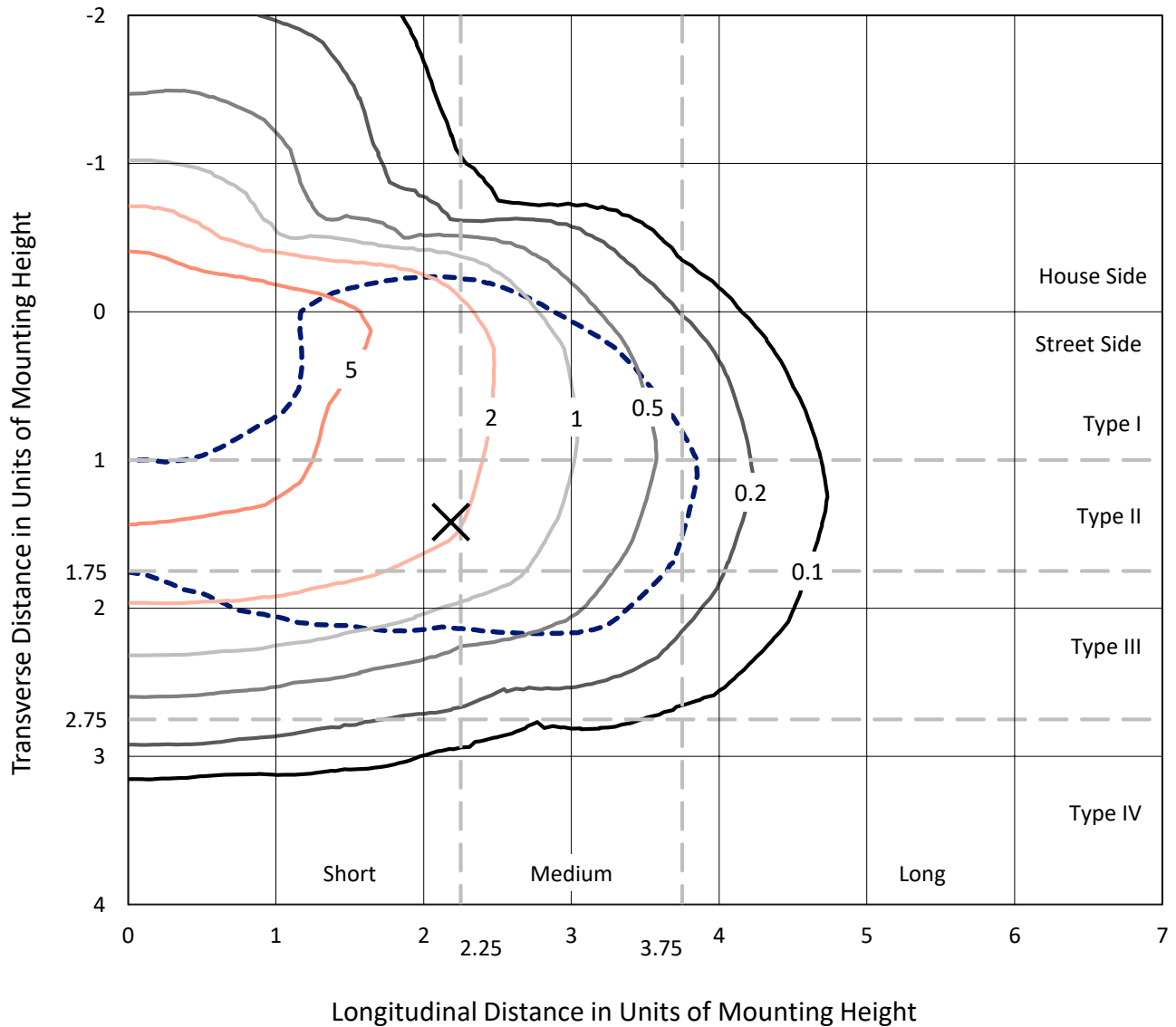
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

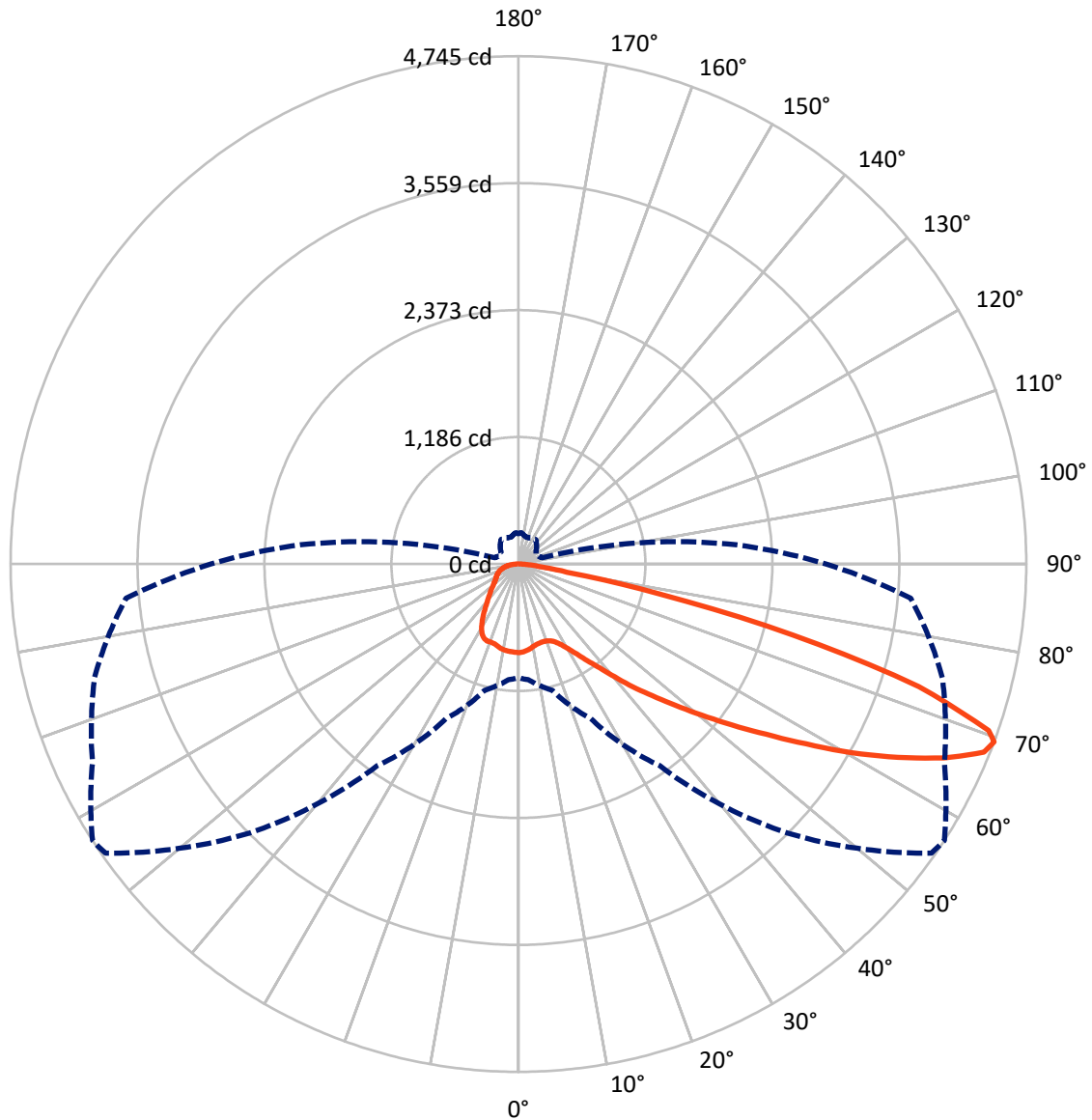
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.5 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1479.3	0.0	1479.3
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	5224.7	0.0	5224.7
	% Fixture	77.9	0.0	77.9
Total	Lumens	6704.0	0.0	6704.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.6	1.2
10°-20°	220.5	3.3
20°-30°	366.8	5.5
30°-40°	598.9	8.9
40°-50°	1010.9	15.1
50°-60°	1572.5	23.5
60°-70°	1873.2	27.9
70°-80°	872.7	13.0
80°-90°	111.0	1.7
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°	6704.0	100.0
0°-180°	6704.0	100.0



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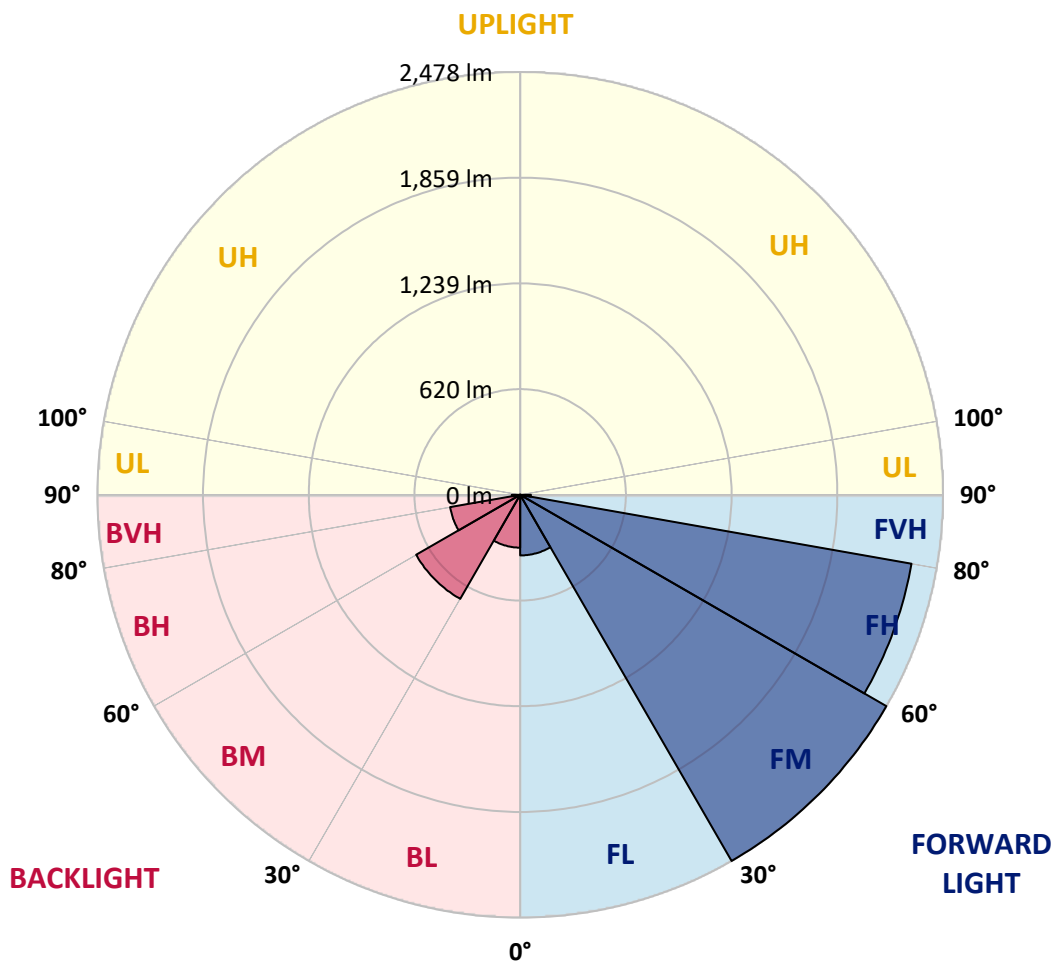
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	355.0	5.3			
FM	(30°-60°)	2478.3	37.0			
FH	(60°-80°)	2329.0	34.7			G2/5000
FVH	(80°-90°)	62.4	0.9			G1/100
BL	(0°-30°)	309.8	4.6	B1/500		
BM	(30°-60°)	704.1	10.5	B1/1000		
BH	(60°-80°)	416.9	6.2	B1/500		G1/500
BVH	(80°-90°)	48.6	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	828.3	828.3	828.3	828.3	828.3	828.3	828.3	828.3	828.3	828.3	828.3
2.5°	823.6	823.6	825.8	825.8	825.8	824.9	822.3	823.2	821.5	820.2	818.0
5°	806.9	807.7	810.3	811.2	812.5	812.9	812.9	812.5	812.9	812.9	811.6
7.5°	783.7	784.6	787.6	789.3	793.2	796.6	798.3	798.3	800.4	802.2	802.6
10°	769.5	769.5	771.3	771.3	774.3	776.0	781.6	781.1	787.1	792.7	795.3
12.5°	767.8	767.8	767.0	764.0	762.2	761.8	767.4	768.3	777.3	787.1	791.9
15°	773.4	773.4	770.8	764.8	758.4	755.4	761.0	762.7	772.5	784.1	791.4
17.5°	791.4	791.0	785.4	773.4	762.2	757.5	759.2	761.0	770.0	783.3	792.3
20°	831.3	831.3	819.3	797.4	778.1	767.0	764.4	765.7	772.1	784.6	796.2
22.5°	901.3	902.6	881.1	845.1	812.0	788.4	778.1	779.4	782.4	794.4	807.3
25°	1004.3	1000.9	970.4	919.3	867.8	827.5	806.5	807.7	807.7	818.9	832.2
27.5°	1113.3	1114.2	1070.4	1015.5	947.7	887.6	854.1	853.7	853.2	864.0	878.1
30°	1236.5	1236.9	1186.3	1122.8	1045.1	968.3	918.0	917.6	913.8	927.1	945.5
32.5°	1371.3	1370.8	1312.0	1240.4	1154.1	1067.0	1001.7	1001.3	998.3	1016.3	1038.6
35°	1520.6	1520.6	1462.3	1373.9	1280.7	1183.7	1108.2	1107.7	1109.5	1133.9	1155.0
37.5°	1700.5	1704.3	1633.9	1526.6	1424.9	1321.5	1233.5	1230.9	1218.1	1259.3	1294.0
40°	1888.0	1898.8	1825.8	1700.5	1590.6	1483.7	1386.7	1385.0	1373.9	1417.6	1473.9
42.5°	2091.0	2115.5	2034.4	1906.5	1786.7	1671.3	1573.9	1569.1	1526.2	1594.5	1682.4
45°	2357.1	2373.0	2255.4	2139.5	2026.7	1894.9	1779.0	1753.7	1710.8	1798.3	1912.5
47.5°	2538.3	2530.5	2457.1	2379.5	2306.9	2180.7	2002.6	1970.4	1918.1	2034.0	2159.7
50°	2650.7	2656.3	2615.1	2611.2	2607.4	2519.4	2255.0	2216.4	2155.8	2293.2	2440.0
52.5°	2725.0	2699.6	2706.9	2794.5	2900.5	2858.4	2540.4	2497.5	2435.2	2572.6	2738.3
55°	2694.1	2660.6	2728.0	2900.5	3149.9	3159.3	2853.7	2809.5	2756.3	2869.6	3097.1
57.5°	2566.2	2582.9	2689.3	2929.2	3320.2	3428.8	3213.8	3168.7	3064.0	3179.0	3437.8
60°	2386.3	2420.2	2582.9	2883.8	3439.6	3638.7	3609.1	3579.0	3398.8	3480.3	3795.8
62.5°	2193.2	2226.7	2426.7	2806.1	3385.9	3824.5	3997.1	3978.6	3768.3	3770.5	4022.8
65°	1907.8	1921.5	2125.8	2594.0	3237.0	3992.4	4385.5	4369.2	4121.6	4018.1	4086.4
67.5°	1440.8	1458.0	1625.8	2047.7	2783.8	3901.4	4695.8	4693.2	4334.0	4110.0	3935.3
69°	1064.0	1085.0	1221.9	1589.7	2301.8	3554.6	4710.4	4745.2	4391.5	4100.5	3679.9
70°	778.6	802.6	929.2	1261.8	1917.2	3171.7	4585.5	4660.2	4369.6	4040.9	3480.8
72.5°	330.9	339.1	401.3	569.5	972.6	1912.5	3755.9	3913.0	3946.4	3620.7	2719.4
75°	207.3	209.9	234.3	292.3	432.6	791.0	2432.2	2646.4	2946.4	2809.1	1820.6
77.5°	156.2	158.4	172.5	201.3	268.7	295.3	1128.4	1345.5	1687.6	1652.4	906.0
80°	119.7	121.0	130.5	146.4	189.3	185.0	366.1	460.1	704.3	621.5	320.6
82.5°	94.0	94.4	102.6	105.6	132.2	124.5	183.7	204.7	284.6	236.5	156.7
85°	83.3	84.6	92.7	77.3	84.6	75.1	100.9	109.4	151.1	142.5	59.2
87.5°	42.5	44.6	77.7	66.1	42.5	35.6	44.2	47.6	61.4	66.5	28.8
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°	828.3	828.3	828.3	828.3	828.3	828.3	828.3	828.3	828.3	828.3	828.3
2.5°	818.5	818.9	820.2	822.3	825.8	830.1	835.2	840.4	843.4	845.5	844.7
5°	811.6	812.0	814.6	818.5	822.8	829.2	837.8	844.2	848.9	852.0	851.5
7.5°	803.0	804.3	809.5	813.8	819.8	824.9	831.8	837.8	842.5	845.5	845.1
10°	796.6	797.9	804.3	809.9	815.0	815.9	814.6	812.9	812.5	814.6	813.8
12.5°	793.6	796.2	802.2	806.0	803.9	795.7	786.3	782.4	781.1	785.4	785.9
15°	794.4	796.6	801.7	799.2	787.6	773.8	768.7	771.7	774.3	776.8	777.3
17.5°	796.6	797.9	799.2	789.7	773.4	764.4	762.7	759.7	751.9	747.7	747.2
20°	800.4	802.2	800.0	785.0	770.4	758.4	737.8	719.3	701.7	692.3	688.4
22.5°	813.8	815.0	808.6	794.0	771.7	732.6	691.0	659.2	632.2	617.6	612.0
25°	839.9	842.1	833.1	814.6	756.2	688.0	629.2	586.3	552.4	534.8	530.1
27.5°	885.9	888.0	878.1	830.1	720.2	628.3	557.1	514.6	485.4	470.4	468.3
30°	954.5	957.5	948.5	829.6	665.3	552.4	486.7	461.8	445.1	434.8	434.3
32.5°	1049.8	1061.0	1024.1	815.0	597.4	475.5	433.5	424.9	416.7	409.9	409.9
35°	1170.8	1197.0	1098.7	784.6	522.8	423.2	403.9	395.7	385.4	378.1	377.3
37.5°	1315.5	1356.3	1152.0	730.5	458.4	397.9	385.8	372.5	356.2	342.1	338.6
40°	1514.2	1523.6	1178.1	642.5	410.3	384.1	369.1	352.4	331.8	315.9	314.2
42.5°	1713.8	1682.9	1173.0	548.1	382.8	371.7	351.9	333.5	315.0	301.7	301.7
45°	1940.8	1821.9	1133.9	453.2	357.9	357.5	336.1	318.5	304.3	294.4	292.3
47.5°	2158.0	1946.8	1066.5	383.3	332.2	343.4	325.8	311.6	298.7	289.3	287.6
50°	2421.5	2091.5	994.9	334.3	307.3	330.9	321.5	314.2	301.7	285.4	283.7
52.5°	2683.3	2260.6	939.5	297.4	285.4	321.0	324.0	324.9	313.3	281.6	279.4
55°	2964.4	2441.3	881.1	268.7	267.4	316.3	330.1	329.2	323.6	282.4	279.0
57.5°	3231.8	2622.8	794.0	248.5	253.2	311.6	331.3	317.6	307.7	286.7	281.1
60°	3453.3	2773.0	666.1	234.3	241.2	302.2	322.8	302.2	285.4	285.8	280.7
62.5°	3561.0	2815.1	509.5	218.0	231.3	286.7	310.3	290.6	275.1	287.6	284.6
65°	3479.0	2695.3	363.1	203.0	219.3	268.7	303.0	280.7	270.0	296.1	292.7
67.5°	3184.6	2369.2	263.5	189.7	207.7	250.2	289.3	271.7	264.8	302.6	294.9
69°	2871.7	2045.5	228.3	182.0	199.6	240.3	280.3	267.0	260.9	293.6	282.4
70°	2611.6	1796.2	210.7	177.3	192.7	234.8	273.4	264.0	257.1	282.8	269.5
72.5°	1872.6	1161.0	177.3	163.1	174.7	222.3	258.4	252.8	242.5	255.4	246.8
75°	1131.4	606.0	150.6	148.5	155.8	205.2	240.8	233.9	223.6	224.9	220.6
77.5°	519.8	279.8	126.2	131.3	136.1	183.7	219.3	211.6	202.2	198.7	199.1
80°	227.9	163.5	105.6	112.0	114.6	165.2	196.1	187.6	177.3	195.7	181.5
82.5°	123.2	94.9	82.4	86.7	94.0	143.8	170.4	159.2	149.4	173.8	140.3
85°	49.8	48.5	55.8	60.1	65.2	103.4	142.5	130.9	118.9	106.4	103.9
87.5°	21.5	23.2	27.5	29.2	34.8	64.4	95.7	83.7	84.1	72.1	70.8
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)