

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: P196561

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196561
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-SL2-7030-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 615mA 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: 3816.4 lumens
Efficiency: N/A
Efficacy: 112.2 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 - G1

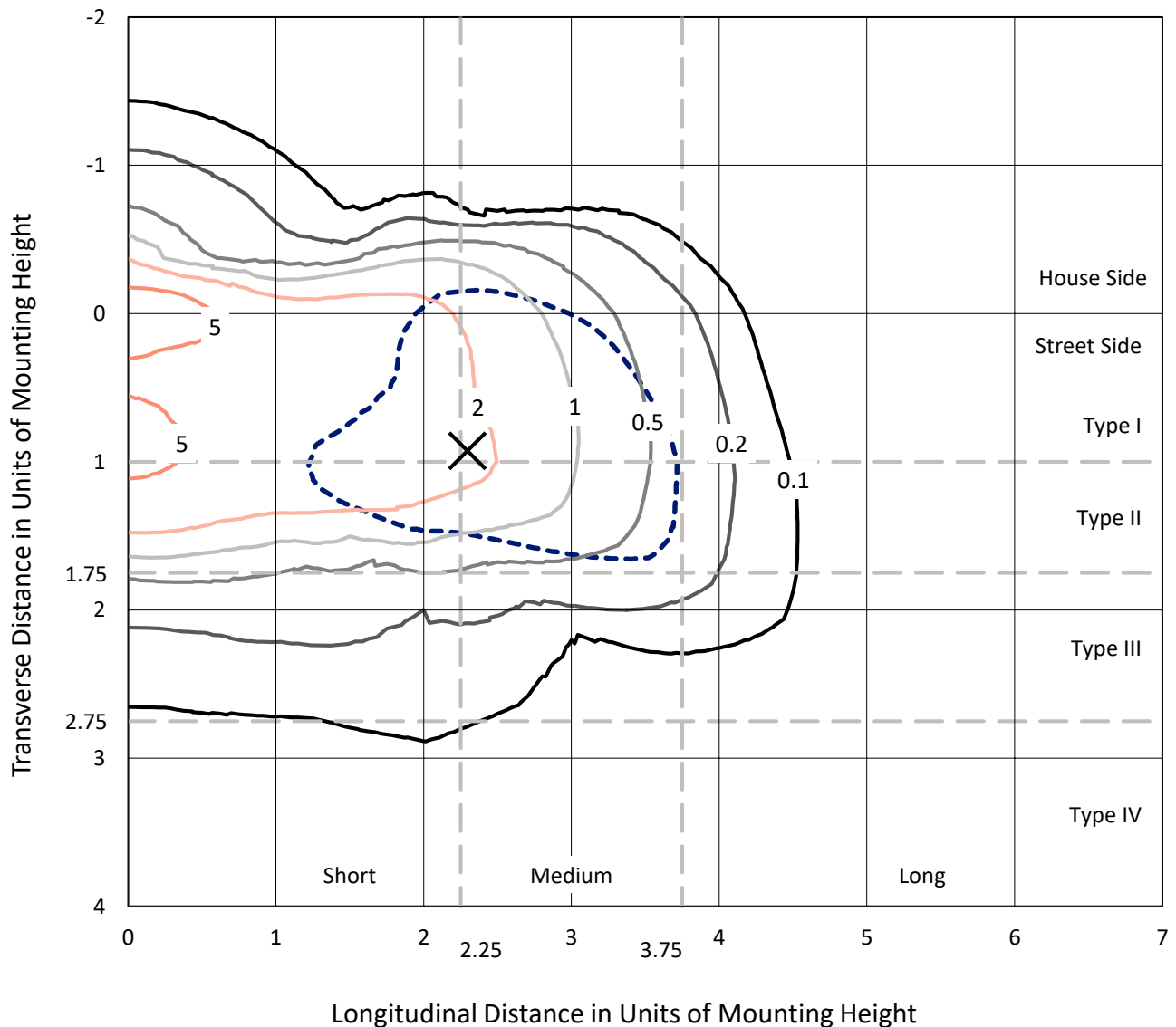
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

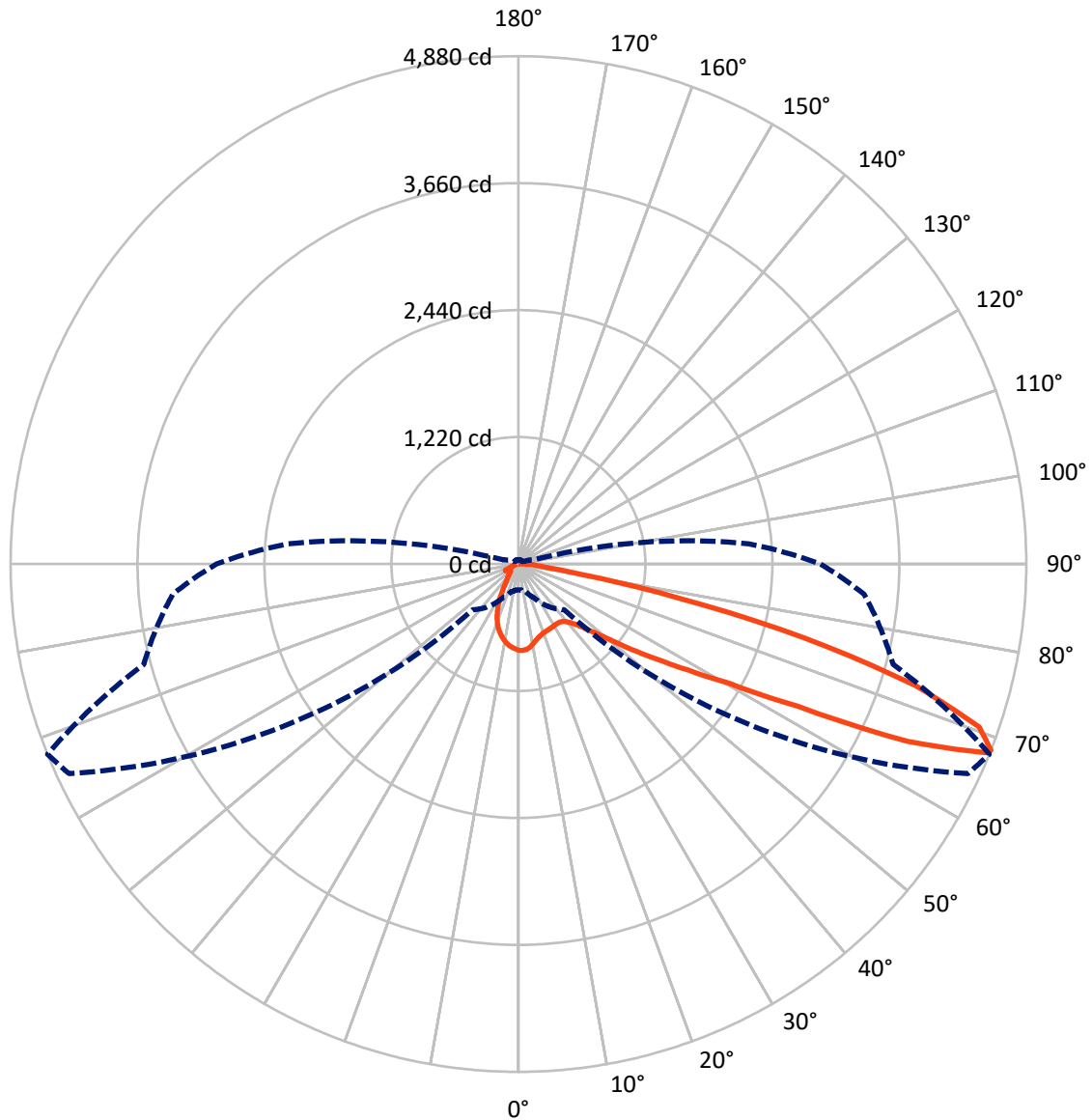
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.3 fc
 Type 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	624.4	0.0	624.4
	% Fixture	16.4	0.0	16.4
Street Side	Lumens	3192.1	0.0	3192.1
	% Fixture	83.6	0.0	83.6
Total	Lumens	3816.4	0.0	3816.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.2	1.9
10°-20°	165.0	4.3
20°-30°	223.2	5.8
30°-40°	314.7	8.2
40°-50°	517.5	13.6
50°-60°	802.1	21.0
60°-70°	1040.0	27.3
70°-80°	596.8	15.6
80°-90°	85.9	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°	3816.4	100.0
0°-180°	3816.4	100.0



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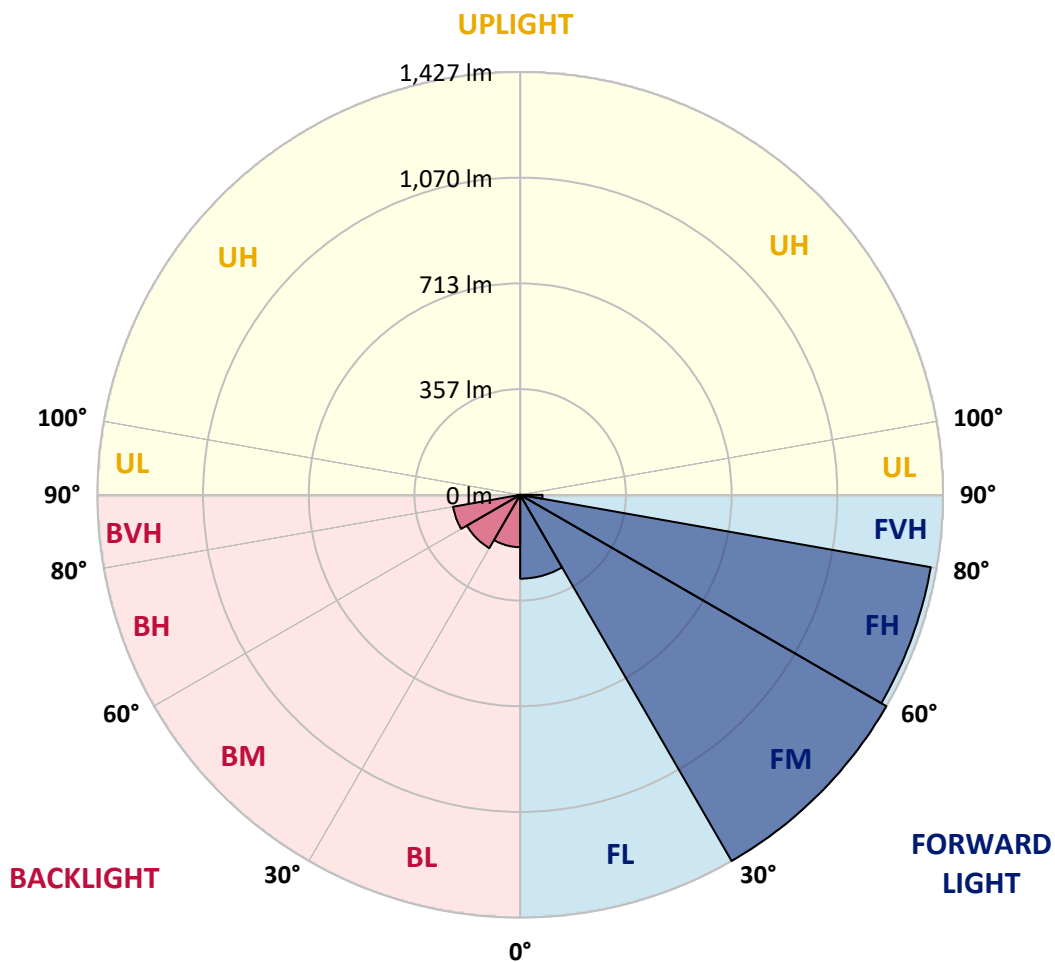
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	282.9	7.4			
FM	(30°-60°)	1426.6	37.4			
FH	(60°-80°)	1406.9	36.9			G1/1800
FVH	(80°-90°)	75.6	2.0			G1/100
BL	(0°-30°)	176.5	4.6	B1/500		
BM	(30°-60°)	207.7	5.4	B0/220		
BH	(60°-80°)	229.9	6.0	B1/500		G1/500
BVH	(80°-90°)	10.2	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-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4
2.5°	808.2	814.7	814.7	819.5	823.7	827.2	830.2	830.2	830.2	828.1	826.4
5°	723.2	731.9	733.2	745.1	760.9	780.1	801.5	820.4	824.2	831.1	833.8
7.5°	664.2	666.9	671.6	679.8	695.8	719.5	753.2	795.5	805.8	827.6	839.1
10°	622.2	624.5	628.5	636.8	651.1	672.6	705.9	760.9	777.8	816.7	839.4
12.5°	591.6	593.4	597.1	604.5	619.3	638.5	672.4	729.8	750.6	805.8	842.9
15°	567.7	570.7	573.6	580.8	595.8	614.2	648.7	707.0	729.8	797.0	849.4
17.5°	558.2	559.6	560.2	563.9	577.3	596.1	630.5	691.1	714.4	790.1	854.4
20°	564.3	564.5	559.4	556.9	564.7	582.0	615.2	679.0	703.0	783.8	856.4
22.5°	590.3	590.3	577.3	566.4	561.1	571.9	605.1	670.9	696.7	779.0	856.4
25°	640.1	638.0	617.8	596.1	572.8	568.3	598.5	665.6	692.0	776.7	853.1
27.5°	705.9	703.7	678.1	645.9	604.1	575.9	596.3	661.3	687.4	772.8	846.1
30°	785.6	783.8	754.7	712.5	650.6	599.7	601.6	658.4	683.6	766.6	834.4
32.5°	865.2	864.0	840.9	797.8	715.0	639.7	615.2	657.8	681.6	759.2	820.2
35°	945.1	945.1	930.9	894.5	801.5	700.1	644.0	667.1	685.3	755.1	808.0
37.5°	1063.3	1058.5	1032.1	994.5	910.4	778.4	690.3	686.5	699.8	761.9	804.0
40°	1246.2	1232.6	1166.5	1103.2	1029.3	878.6	758.1	724.2	732.1	784.8	813.4
42.5°	1437.8	1416.0	1328.5	1227.3	1152.2	1002.2	847.1	785.2	785.0	829.2	843.6
45°	1602.0	1590.9	1496.1	1367.7	1292.6	1141.3	959.6	876.0	867.1	898.0	901.7
47.5°	1697.5	1690.0	1632.9	1516.3	1459.1	1305.5	1102.2	1001.9	985.0	1003.4	997.6
50°	1671.0	1678.3	1661.9	1602.3	1638.2	1536.4	1283.9	1174.4	1142.3	1160.8	1146.7
52.5°	1532.0	1551.4	1566.1	1577.6	1741.1	1845.3	1512.2	1389.9	1363.2	1360.0	1346.5
55°	1281.4	1312.3	1358.6	1443.0	1713.4	2093.4	1911.2	1650.4	1611.5	1591.1	1596.3
57.5°	872.1	918.9	1018.9	1179.2	1569.6	2199.1	2501.0	1986.9	1921.1	1848.3	1865.3
60°	480.4	519.5	638.5	800.0	1241.3	2183.3	3023.7	2533.9	2326.6	2133.8	2168.7
62.5°	310.9	319.4	407.9	546.6	761.9	1927.6	3314.2	3448.1	3009.1	2510.2	2559.3
65°	249.7	255.7	299.2	440.8	530.8	1240.0	3327.2	4396.4	4106.9	3021.8	3023.3
67.5°	244.0	246.8	271.9	370.7	497.9	675.1	2875.9	4770.4	4837.5	3625.6	3333.6
68°	247.6	250.7	276.2	359.3	497.5	622.2	2658.1	4764.7	4879.5	3726.5	3333.6
70°	218.4	222.4	281.7	371.7	476.4	535.1	1820.2	4511.7	4696.6	3958.7	3163.2
72.5°	114.1	110.9	139.3	293.5	536.3	557.4	961.6	3769.2	3985.1	3666.2	2732.8
75°	89.0	81.1	78.0	116.0	471.7	578.1	558.5	2679.0	2842.1	2642.9	1826.6
77.5°	83.8	74.1	68.3	68.5	207.7	601.6	451.8	1576.6	1576.6	1260.8	582.9
80°	67.3	58.4	54.6	62.3	100.2	554.5	471.5	718.5	612.8	325.8	160.5
82.5°	44.4	39.7	39.9	50.6	76.1	370.2	546.0	354.8	266.5	144.3	94.5
85°	28.2	24.1	26.9	35.4	56.9	165.1	540.5	246.6	176.5	81.1	47.1
87.5°	14.2	10.9	13.4	18.5	34.6	47.4	445.0	220.1	130.9	33.7	25.6
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°	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4	830.4
2.5°	826.4	821.0	818.3	813.8	808.2	802.7	799.0	797.3	796.3	796.7	796.5
5°	832.4	825.2	813.4	796.7	779.6	761.3	747.5	736.7	730.0	728.0	727.4
7.5°	836.9	826.4	804.4	774.1	744.7	712.7	685.6	663.9	649.2	642.5	642.2
10°	836.2	822.7	788.1	743.2	700.1	653.2	610.5	574.1	547.7	535.1	534.5
12.5°	836.9	818.5	767.9	707.0	645.1	578.1	514.8	458.3	418.8	400.1	399.4
15°	839.8	814.0	747.2	666.6	581.1	486.4	395.8	324.8	289.0	276.8	276.8
17.5°	839.6	806.5	723.2	619.7	505.1	378.1	270.2	226.3	222.9	234.2	235.9
20°	834.6	794.6	692.2	564.3	415.8	261.7	183.2	177.0	205.0	235.9	239.3
22.5°	827.0	779.0	656.6	499.7	311.8	170.6	141.4	150.8	188.7	227.2	232.6
25°	816.1	760.3	615.7	424.6	207.4	122.7	117.9	129.7	156.3	182.0	186.0
27.5°	800.6	736.7	571.1	343.3	132.4	100.9	102.7	110.9	122.4	133.4	135.6
30°	780.7	709.0	522.6	253.3	100.5	90.2	93.2	98.3	103.2	110.3	111.7
32.5°	760.9	680.8	471.9	174.0	87.7	84.5	87.5	90.2	94.5	99.2	100.2
35°	743.0	654.7	419.8	121.4	82.3	80.8	82.3	84.0	88.3	93.0	93.5
37.5°	730.0	633.2	365.5	95.9	79.0	77.6	78.2	79.0	84.0	91.0	91.8
40°	728.2	619.1	310.4	86.2	76.5	74.6	74.1	74.6	81.1	89.0	89.7
42.5°	745.1	619.7	256.5	82.3	74.6	72.3	70.3	71.3	77.0	83.2	83.8
45°	785.2	637.2	209.9	80.6	72.7	71.0	68.1	68.5	71.3	74.6	75.1
47.5°	856.0	675.3	174.3	79.5	71.3	69.8	66.1	64.6	64.8	66.5	66.5
50°	969.2	739.1	152.5	78.5	70.0	67.3	63.1	60.1	59.3	60.3	60.5
52.5°	1138.1	848.6	142.1	76.5	67.8	64.0	59.3	56.4	55.0	56.0	56.0
55°	1366.2	1023.4	137.1	73.8	65.1	60.1	55.8	53.3	52.3	53.1	53.1
57.5°	1626.3	1250.5	145.7	70.0	61.6	55.8	52.9	51.2	50.4	51.2	51.4
60°	1935.1	1547.6	203.9	65.3	57.8	52.1	50.4	49.3	48.8	49.6	49.6
62.5°	2345.7	1943.0	315.6	61.6	53.9	48.6	48.1	47.6	47.1	47.8	47.8
65°	2789.0	2302.7	324.8	59.3	50.4	45.7	45.9	45.9	45.4	46.1	46.1
67.5°	2930.0	2271.6	181.5	56.6	46.1	42.6	43.6	43.6	43.3	44.1	43.9
68°	2900.1	2222.3	158.1	55.8	45.4	41.8	42.8	43.1	42.8	43.6	43.3
70°	2677.3	1951.1	103.9	51.6	42.2	39.5	40.9	41.1	40.9	41.8	41.6
72.5°	2210.1	1463.4	76.8	45.2	38.1	36.2	37.7	37.9	38.1	39.2	38.9
75°	1403.6	808.2	60.5	38.4	34.2	32.4	33.9	34.6	35.2	36.6	35.9
77.5°	384.4	245.3	49.1	32.7	29.4	28.6	29.7	30.7	31.1	32.9	31.6
80°	134.6	108.5	40.9	27.7	24.5	24.1	25.1	26.2	26.7	28.2	26.7
82.5°	81.7	70.8	32.7	21.8	19.2	18.9	20.2	21.2	21.8	21.8	20.6
85°	42.6	37.3	23.9	15.2	13.2	12.4	14.7	16.0	16.2	16.0	15.2
87.5°	23.9	21.2	12.7	7.2	6.0	6.2	7.7	9.5	10.3	10.0	9.5
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)