

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: P196567

Luminaire Tested: **NAV-AF-01-D-UNV-SL2-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196567
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-SL2-7030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 800mA 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: 4679.6 lumens
Efficiency: N/A
Efficacy: 106.4 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): 44
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

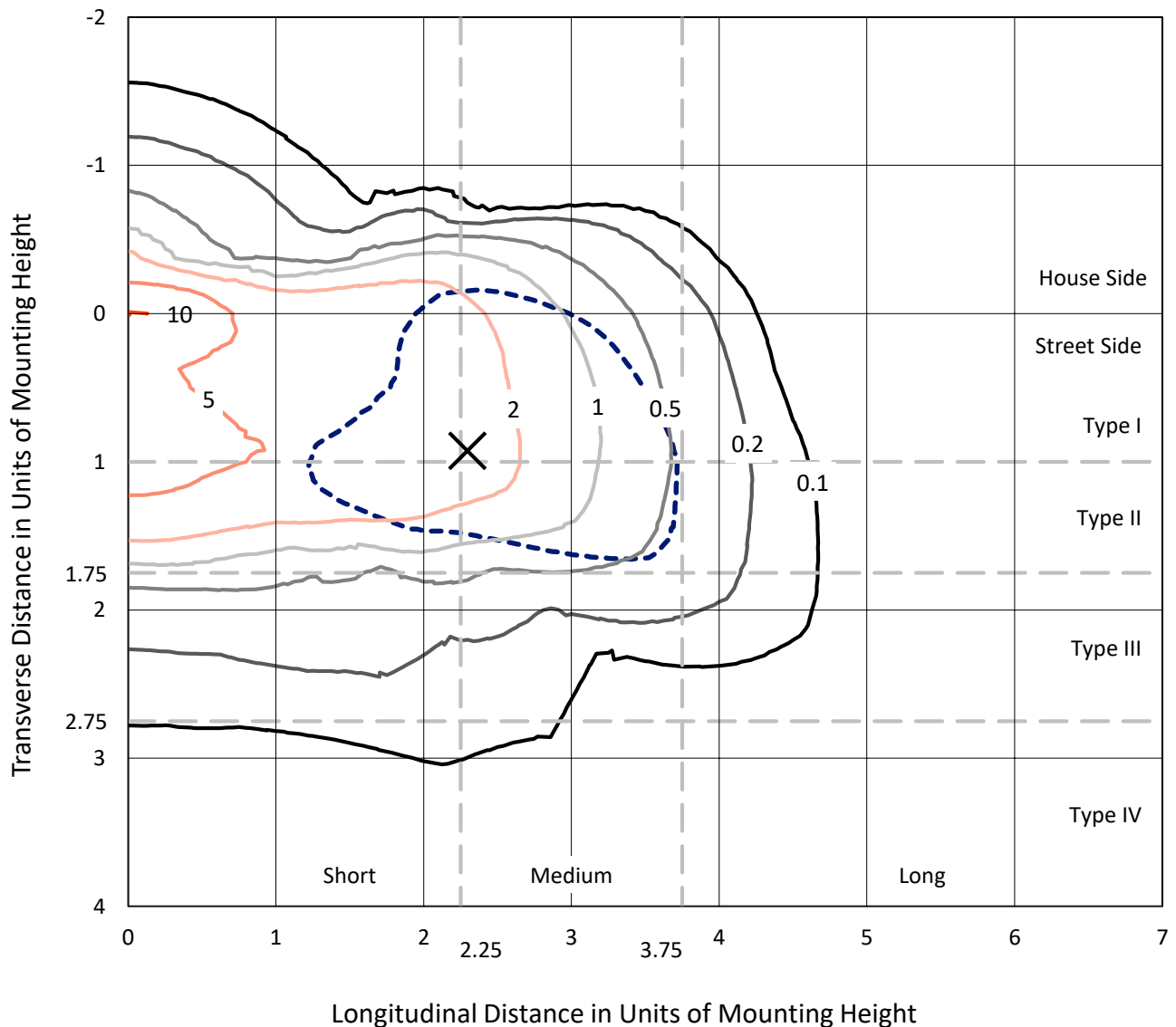


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Iso-Footcandle Lines of Horizontal Illumination

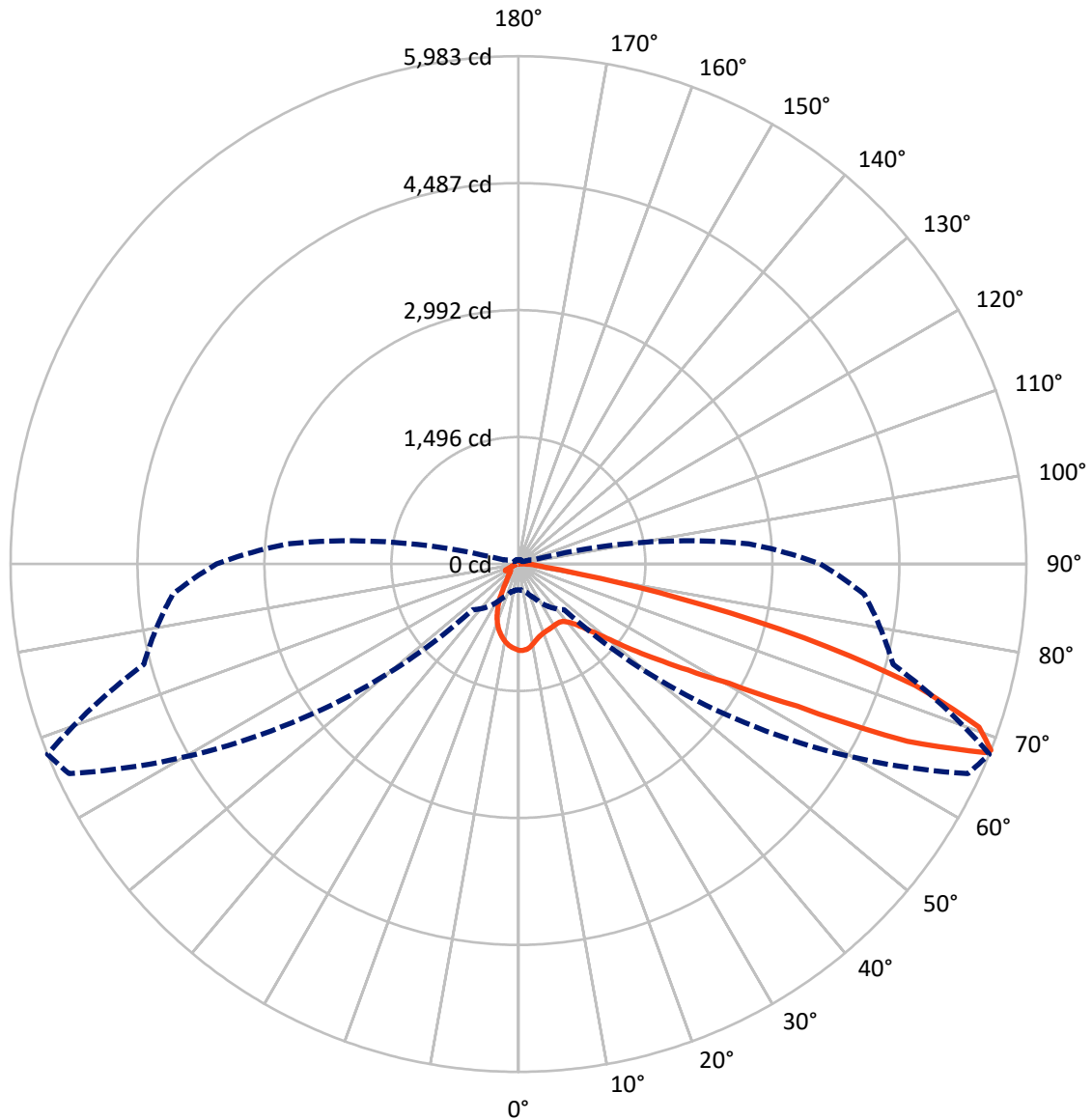
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.2 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	765.6	0.0	765.6
	% Fixture	16.4	0.0	16.4
Street Side	Lumens	3914.0	0.0	3914.0
	% Fixture	83.6	0.0	83.6
Total	Lumens	4679.6	0.0	4679.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.2	1.9
10°-20°	202.4	4.3
20°-30°	273.7	5.8
30°-40°	385.9	8.2
40°-50°	634.5	13.6
50°-60°	983.6	21.0
60°-70°	1275.3	27.3
70°-80°	731.8	15.6
80°-90°	105.3	2.2
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°	4679.6	100.0
0°-180°	4679.6	100.0



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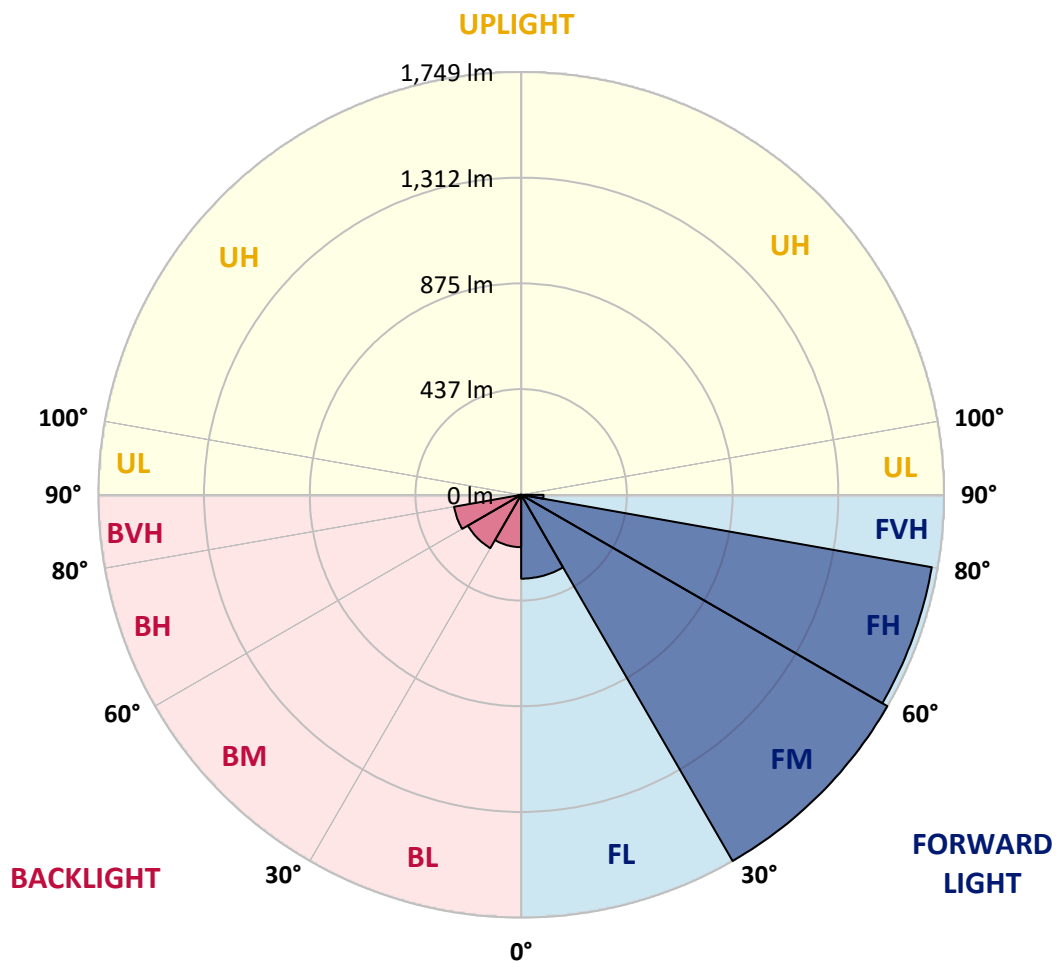
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	346.8	7.4			
FM	(30°-60°)	1749.3	37.4			
FH	(60°-80°)	1725.1	36.9			G1/1800
FVH	(80°-90°)	92.7	2.0			G1/100
BL	(0°-30°)	216.4	4.6	B1/500		
BM	(30°-60°)	254.6	5.4	B1/1000		
BH	(60°-80°)	282.0	6.0	B1/500		G1/500
BVH	(80°-90°)	12.6	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°	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2
2.5°	991.0	998.9	998.9	1004.7	1010.0	1014.3	1018.0	1018.0	1018.0	1015.4	1013.4
5°	886.7	897.4	898.9	913.7	933.0	956.4	982.8	1006.1	1010.5	1019.2	1022.5
7.5°	814.3	817.7	823.5	833.6	853.2	882.2	923.5	975.4	987.9	1014.9	1028.9
10°	762.9	765.7	770.6	780.7	798.4	824.7	865.5	933.0	953.8	1001.5	1029.2
12.5°	725.4	727.5	732.1	741.4	759.4	782.9	824.5	894.8	920.4	987.9	1033.5
15°	696.1	699.7	703.4	712.3	730.6	753.3	795.4	867.0	894.8	977.4	1041.5
17.5°	684.4	686.2	686.9	691.5	708.0	731.0	773.1	847.3	876.0	968.7	1047.6
20°	691.7	692.0	685.9	682.9	692.3	713.5	754.4	832.7	862.0	961.1	1050.0
22.5°	723.9	723.9	708.0	694.6	688.2	701.2	741.9	822.6	854.4	955.3	1050.0
25°	785.0	782.3	757.5	731.0	702.4	697.0	733.9	816.1	848.6	952.2	1046.0
27.5°	865.5	862.9	831.5	792.0	740.7	706.2	731.2	811.0	842.7	947.6	1037.5
30°	963.2	961.1	925.3	873.6	797.8	735.2	737.6	807.3	838.2	939.9	1023.1
32.5°	1060.7	1059.5	1031.1	978.2	876.7	784.4	754.4	806.7	835.8	930.8	1005.7
35°	1158.8	1158.8	1141.4	1096.8	982.8	858.3	789.6	818.1	840.3	925.9	990.8
37.5°	1303.8	1297.9	1265.5	1219.4	1116.4	954.4	846.4	841.9	858.0	934.1	985.8
40°	1528.1	1511.3	1430.3	1352.6	1262.2	1077.2	929.6	888.1	897.8	962.2	997.4
42.5°	1762.9	1736.2	1628.9	1504.9	1412.8	1228.8	1038.7	962.9	962.6	1016.6	1034.4
45°	1964.4	1950.6	1834.5	1677.0	1585.1	1399.4	1176.6	1074.1	1063.2	1101.2	1105.7
47.5°	2081.4	2072.2	2002.1	1859.1	1789.1	1600.8	1351.4	1228.5	1207.8	1230.4	1223.3
50°	2049.0	2057.9	2037.6	1964.6	2008.6	1883.9	1574.3	1440.0	1400.6	1423.2	1406.1
52.5°	1878.3	1902.3	1920.3	1934.3	2134.9	2262.6	1854.2	1704.2	1671.4	1667.6	1651.0
55°	1571.2	1609.2	1665.9	1769.4	2100.9	2566.8	2343.4	2023.6	1976.0	1950.9	1957.3
57.5°	1069.3	1126.8	1249.4	1445.9	1924.6	2696.4	3066.6	2436.3	2355.6	2266.4	2287.2
60°	589.0	637.1	782.9	980.9	1522.0	2677.2	3707.6	3107.0	2853.0	2616.3	2659.2
62.5°	381.2	391.5	500.1	670.1	934.1	2363.5	4063.8	4227.9	3689.5	3078.0	3138.2
65°	306.3	313.7	366.8	540.4	650.7	1520.5	4079.6	5390.8	5035.9	3705.2	3707.0
67.5°	299.3	302.6	333.5	454.5	610.4	827.7	3526.4	5849.3	5931.4	4445.5	4087.6
68°	303.5	307.6	338.7	440.6	610.1	762.9	3259.2	5842.2	5983.1	4569.3	4087.6
70°	267.8	272.7	345.4	455.7	584.2	656.0	2231.8	5532.1	5758.7	4854.0	3878.4
72.5°	140.0	136.0	170.9	359.8	657.5	683.5	1179.0	4621.6	4886.4	4495.4	3350.9
75°	109.2	99.3	95.7	142.1	578.3	708.9	684.7	3284.9	3484.9	3240.5	2239.7
77.5°	102.7	90.8	83.8	84.0	254.7	737.6	554.0	1933.2	1933.2	1545.8	714.7
80°	82.5	71.6	66.9	76.4	122.9	679.8	578.1	880.9	751.3	399.6	196.8
82.5°	54.4	48.6	48.9	62.1	93.2	454.0	669.4	435.0	326.8	177.0	115.9
85°	34.5	29.6	33.0	43.3	69.7	202.3	662.7	302.3	216.5	99.3	57.8
87.5°	17.4	13.4	16.5	22.6	42.5	58.1	545.6	269.9	160.5	41.3	31.4
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°	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2	1018.2
2.5°	1013.4	1006.6	1003.2	997.7	991.0	984.3	979.7	977.6	976.3	977.0	976.7
5°	1020.7	1011.8	997.4	977.0	955.9	933.5	916.4	903.2	895.1	892.6	892.0
7.5°	1026.2	1013.4	986.4	949.1	913.1	874.0	840.6	814.1	796.0	787.8	787.4
10°	1025.3	1008.8	966.3	911.2	858.3	800.9	748.7	703.9	671.6	656.0	655.3
12.5°	1026.2	1003.5	941.5	867.0	791.1	708.9	631.2	561.8	513.5	490.6	489.7
15°	1029.9	998.1	916.1	817.4	712.6	596.3	485.4	398.4	354.3	339.4	339.4
17.5°	1029.6	988.9	886.7	759.9	619.3	463.7	331.4	277.5	273.2	287.1	289.2
20°	1023.4	974.3	848.8	691.7	509.9	321.0	224.6	217.0	251.3	289.2	293.5
22.5°	1013.9	955.3	805.1	612.6	382.4	209.1	173.2	184.9	231.4	278.5	285.1
25°	1000.9	932.3	755.1	520.6	254.3	150.4	144.5	159.0	191.6	223.1	228.1
27.5°	981.5	903.2	700.4	420.9	162.4	123.8	125.9	136.0	150.1	163.6	166.3
30°	957.4	869.3	640.7	310.7	123.3	110.7	114.2	120.4	126.5	135.2	136.9
32.5°	933.0	834.8	578.6	213.4	107.6	103.6	107.3	110.7	115.9	121.8	122.9
35°	910.9	802.7	514.7	148.9	100.8	99.0	100.8	103.0	108.1	114.0	114.6
37.5°	895.1	776.4	448.2	117.7	96.9	95.0	96.0	96.9	103.0	111.6	112.5
40°	892.8	759.1	380.6	105.8	93.9	91.4	90.8	91.4	99.3	109.2	110.1
42.5°	913.7	759.9	314.5	100.8	91.4	88.6	86.2	87.4	94.5	102.0	102.7
45°	962.9	781.3	257.5	98.8	89.3	87.1	83.5	84.0	87.4	91.4	92.0
47.5°	1049.8	828.0	213.7	97.5	87.4	85.5	81.0	79.2	79.4	81.6	81.6
50°	1188.5	906.3	187.1	96.2	85.9	82.5	77.3	73.6	72.7	74.0	74.3
52.5°	1395.5	1040.5	174.3	93.9	83.1	78.5	72.7	69.1	67.5	68.9	68.9
55°	1675.2	1254.9	168.2	90.4	79.8	73.6	68.5	65.4	64.3	65.1	65.1
57.5°	1994.0	1533.4	178.5	85.9	75.5	68.5	64.8	62.8	61.7	62.8	63.0
60°	2372.7	1897.8	250.1	80.1	70.9	63.9	61.7	60.5	59.9	60.8	60.8
62.5°	2876.1	2382.5	387.0	75.5	66.0	59.6	59.0	58.4	57.8	58.7	58.7
65°	3419.7	2823.6	398.4	72.7	61.7	55.9	56.3	56.3	55.6	56.6	56.6
67.5°	3592.7	2785.3	222.6	69.4	56.6	52.2	53.5	53.5	53.2	54.1	53.7
68°	3556.1	2724.8	193.8	68.5	55.6	51.4	52.6	52.9	52.6	53.5	53.2
70°	3282.7	2392.2	127.5	63.3	51.7	48.3	50.1	50.5	50.1	51.4	51.1
72.5°	2709.8	1794.4	94.2	55.2	46.8	44.4	46.1	46.4	46.8	48.0	47.6
75°	1721.1	991.0	74.3	47.1	41.8	39.8	41.5	42.5	43.0	44.9	44.0
77.5°	471.4	300.8	60.2	40.1	36.0	35.2	36.4	37.5	38.2	40.3	38.8
80°	165.1	133.0	50.1	34.0	29.9	29.6	30.9	32.1	32.7	34.5	32.7
82.5°	100.3	86.9	40.1	26.6	23.5	23.3	24.8	26.0	26.6	26.6	25.3
85°	52.2	45.9	29.4	18.7	16.2	15.3	18.0	19.5	19.8	19.5	18.7
87.5°	29.4	26.0	15.7	8.8	7.3	7.6	9.5	11.6	12.6	12.2	11.6
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)