

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: P195931

Luminaire Tested: **NAV-AF-01-D-UNV-5MQ-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195931
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)
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-5MQ-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7300.8 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

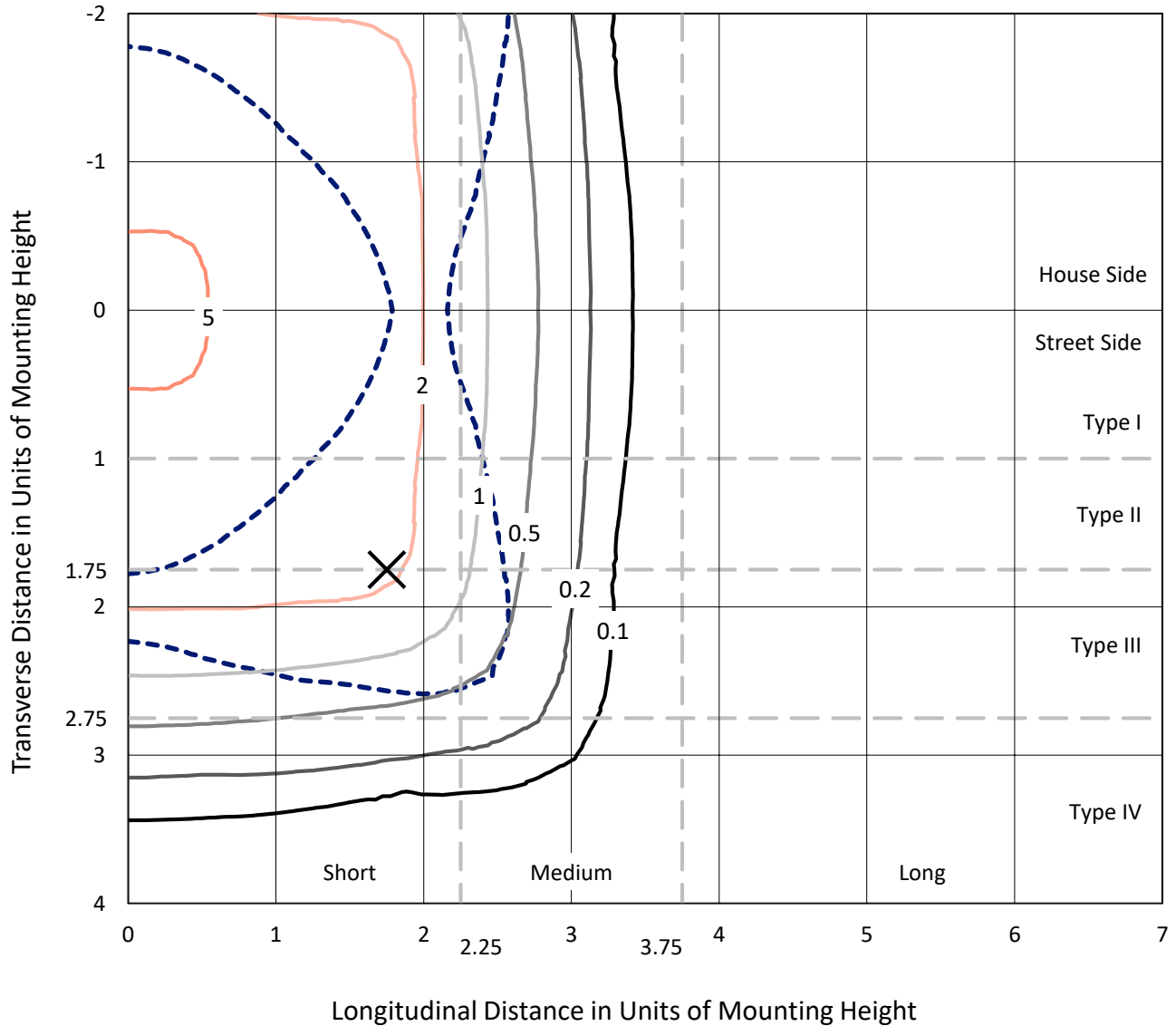
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

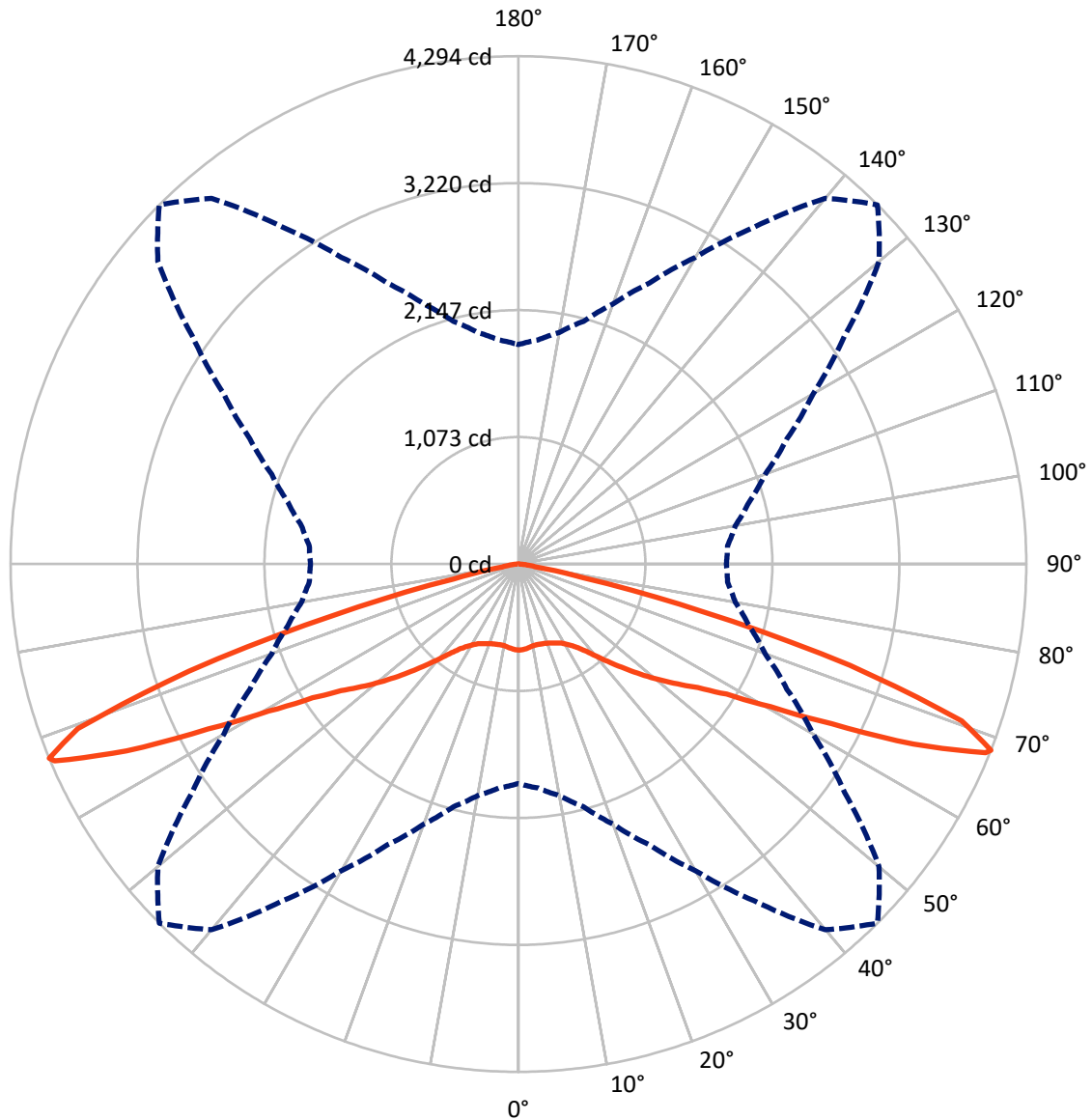
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.3 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3650.4	0.0	3650.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3650.4	0.0	3650.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	7300.8	0.0	7300.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.1	0.9
10°-20°	197.6	2.7
20°-30°	336.0	4.6
30°-40°	549.9	7.5
40°-50°	982.7	13.5
50°-60°	1659.6	22.7
60°-70°	2573.4	35.2
70°-80°	884.8	12.1
80°-90°	48.6	0.7
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°	7300.8	100.0
0°-180°	7300.8	100.0



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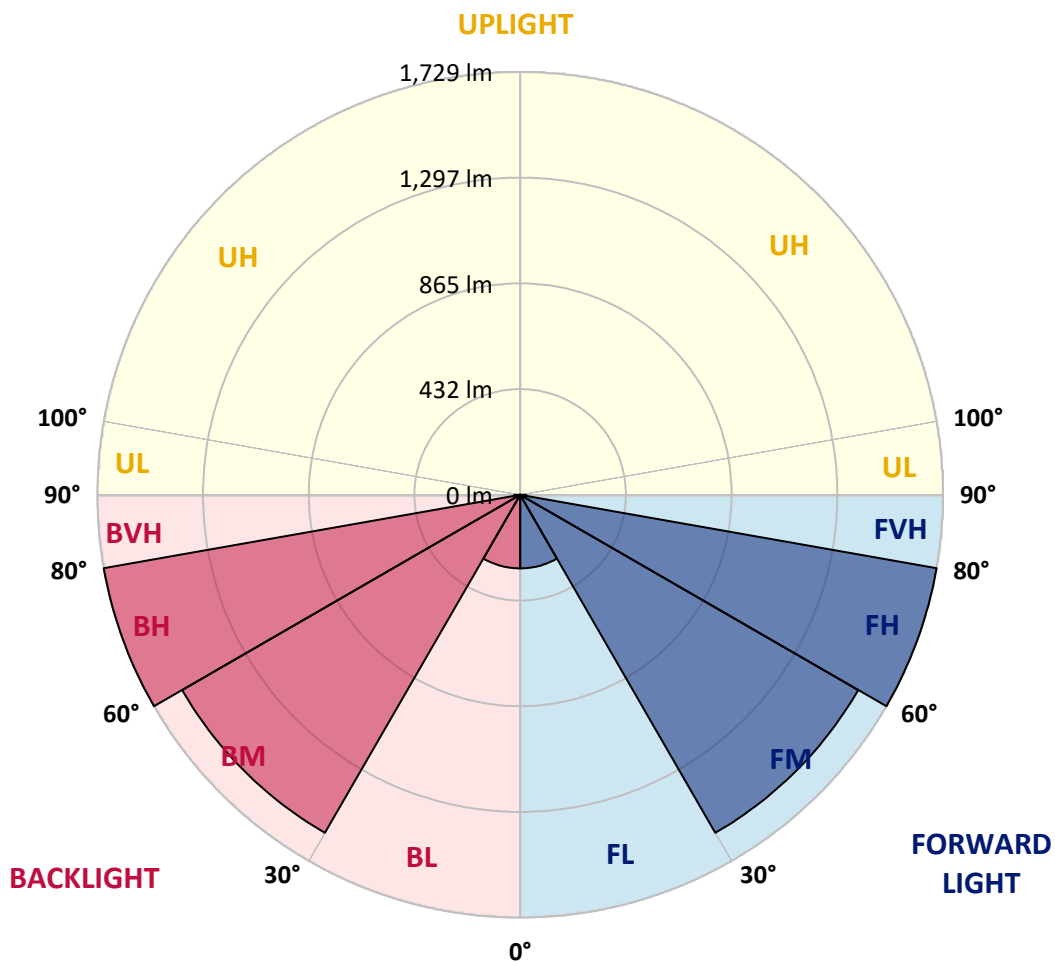
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	300.9	4.1			
FM	(30°-60°)	1596.1	21.9			
FH	(60°-80°)	1729.1	23.7			G1/1800
FVH	(80°-90°)	24.3	0.3			G1/100
BL	(0°-30°)	300.9	4.1	B1/500		
BM	(30°-60°)	1596.1	21.9	B2/2500		
BH	(60°-80°)	1729.1	23.7	B3/2500		G1/1800
BVH	(80°-90°)	24.3	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2
2.5°	731.4	731.4	732.3	731.8	730.5	729.2	727.8	726.5	725.6	724.7	723.8
5°	723.8	723.8	725.2	724.2	723.3	722.0	721.1	719.7	718.9	718.0	718.4
7.5°	714.0	714.8	715.8	715.3	713.5	713.1	711.8	711.3	710.4	709.0	709.5
10°	705.4	705.9	706.9	706.3	705.9	704.6	704.1	703.7	703.3	701.4	701.0
12.5°	696.9	697.9	698.8	699.2	698.8	699.2	699.7	700.1	699.7	698.8	698.8
15°	690.3	691.2	692.5	693.9	694.3	696.9	698.8	700.5	701.9	702.4	701.0
17.5°	686.7	688.0	689.9	692.5	694.8	697.9	701.0	703.7	705.9	706.3	705.0
20°	686.3	687.6	690.3	693.4	697.4	701.4	706.3	710.4	712.6	714.0	712.6
22.5°	689.4	691.2	694.8	698.8	703.7	709.0	715.3	719.7	724.2	726.1	724.7
25°	698.4	700.1	704.1	709.0	714.4	721.1	727.4	733.1	737.6	739.9	738.2
27.5°	717.1	717.5	722.0	727.4	733.7	739.5	747.5	750.2	753.7	756.0	753.7
30°	743.5	744.4	748.4	756.9	762.7	770.3	774.8	777.4	781.4	783.7	781.0
32.5°	783.7	784.6	788.2	796.3	801.6	807.4	812.7	814.6	818.6	821.2	818.2
35°	840.5	842.3	845.4	850.8	855.3	859.7	863.8	862.3	865.1	868.7	865.5
37.5°	918.3	917.8	918.7	922.7	927.2	929.9	936.2	933.0	935.7	938.9	937.0
40°	1009.0	1009.0	1008.6	1015.8	1017.5	1020.2	1026.9	1022.8	1026.4	1030.0	1026.9
42.5°	1112.4	1114.1	1116.3	1122.2	1127.1	1128.0	1131.1	1129.3	1133.7	1136.9	1133.7
45°	1231.2	1233.9	1236.6	1250.0	1252.2	1254.0	1256.3	1250.5	1255.4	1258.0	1257.2
47.5°	1354.6	1359.5	1365.3	1379.2	1388.1	1392.1	1394.0	1387.2	1387.7	1391.7	1392.1
50°	1494.1	1499.4	1505.3	1520.9	1529.4	1536.6	1538.8	1531.3	1532.1	1535.2	1536.2
52.5°	1622.9	1629.2	1641.6	1662.6	1674.7	1687.3	1688.2	1678.8	1682.8	1685.0	1683.3
55°	1744.0	1752.1	1768.6	1796.8	1818.7	1843.3	1854.4	1844.2	1844.2	1842.3	1841.5
57.5°	1885.3	1894.2	1911.2	1943.8	1974.3	2009.6	2040.0	2050.3	2069.0	2075.3	2065.4
60°	2098.1	2107.5	2124.9	2167.8	2206.3	2257.7	2307.8	2348.5	2414.6	2450.4	2418.2
62.5°	2292.5	2306.9	2348.0	2423.2	2506.2	2601.5	2711.9	2790.6	2910.9	2970.8	2889.8
65°	2248.3	2277.4	2357.8	2475.8	2647.5	2854.1	3079.0	3294.9	3543.5	3670.9	3506.4
67.5°	1964.0	1988.6	2075.3	2212.5	2426.6	2711.4	3061.1	3508.1	4020.9	4259.7	3968.6
68°	1855.3	1901.4	1987.7	2124.1	2340.0	2619.9	2993.2	3476.0	4035.7	4293.6	3979.4
70°	1422.6	1439.1	1521.8	1644.3	1877.2	2151.8	2528.6	3079.0	3711.6	3977.1	3653.9
72.5°	676.0	685.8	739.5	860.2	1008.1	1231.6	1564.3	2083.3	2653.3	2929.6	2607.3
75°	247.7	249.9	262.4	291.0	346.5	430.6	590.1	912.9	1351.5	1611.7	1356.8
77.5°	133.7	134.1	139.0	146.2	156.0	167.3	191.4	256.7	414.0	563.3	437.2
80°	84.1	83.6	88.5	94.3	101.1	106.4	108.6	116.2	131.0	153.3	140.9
82.5°	43.0	47.0	58.1	64.3	74.2	76.0	73.8	73.3	77.7	84.1	86.7
85°	23.7	21.0	30.9	41.1	44.7	46.0	46.5	43.8	43.0	42.0	44.3
87.5°	12.1	11.2	13.4	20.6	21.9	17.9	18.3	15.7	10.7	10.7	11.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	728.2	728.2	728.2	728.2	728.2	728.2	728.2	728.2
2.5°	722.9	723.3	722.5	722.5	722.5	722.9	722.5	722.0
5°	717.1	718.0	718.0	718.4	718.9	718.9	718.9	718.9
7.5°	708.6	709.0	709.9	709.9	709.9	709.9	709.9	709.9
10°	700.5	699.7	699.2	698.4	698.4	696.9	697.4	697.9
12.5°	696.5	694.8	693.9	692.5	691.6	690.3	690.3	690.7
15°	698.4	695.6	692.9	692.0	691.2	690.3	689.4	689.9
17.5°	701.9	698.8	695.6	693.9	692.0	690.7	690.3	690.7
20°	709.5	705.0	700.1	696.9	693.4	692.5	691.2	692.5
22.5°	719.7	714.4	708.2	702.4	698.4	696.5	694.8	696.1
25°	732.3	726.5	720.3	713.5	709.0	707.7	705.4	705.4
27.5°	749.7	744.8	739.5	733.1	728.8	727.4	723.8	723.8
30°	777.4	772.5	767.6	762.3	757.8	756.5	752.0	752.0
32.5°	814.1	808.7	805.6	801.2	797.6	795.3	789.9	789.5
35°	863.3	858.4	857.9	854.8	851.2	851.7	846.3	845.4
37.5°	934.0	929.9	931.3	928.5	925.5	928.1	925.0	925.0
40°	1024.3	1022.8	1024.3	1022.4	1022.8	1023.4	1020.7	1021.5
42.5°	1133.3	1129.7	1137.8	1136.9	1135.6	1139.2	1132.9	1128.4
45°	1258.9	1257.6	1265.7	1267.0	1264.3	1266.5	1255.4	1255.0
47.5°	1395.3	1395.3	1402.5	1401.5	1398.9	1399.3	1385.9	1377.4
50°	1537.5	1536.6	1543.7	1541.9	1538.4	1537.9	1524.1	1515.6
52.5°	1685.4	1685.4	1695.7	1690.8	1682.3	1678.3	1661.3	1650.1
55°	1849.1	1846.8	1850.0	1833.8	1817.4	1805.3	1784.2	1775.7
57.5°	2056.0	2030.1	2007.7	1987.2	1964.0	1949.6	1925.1	1916.2
60°	2349.8	2280.5	2250.6	2209.4	2171.0	2151.8	2119.1	2101.7
62.5°	2756.6	2641.8	2560.3	2469.6	2381.9	2320.3	2270.6	2248.8
65°	3226.9	2976.6	2769.6	2575.1	2410.2	2279.1	2206.3	2183.5
67.5°	3405.8	2946.2	2589.0	2310.0	2109.7	1953.7	1866.5	1848.2
68°	3367.8	2876.4	2505.4	2219.7	2018.5	1861.2	1774.4	1757.8
70°	2970.8	2426.6	2035.1	1750.7	1563.0	1413.2	1351.9	1325.5
72.5°	2025.2	1558.5	1195.4	956.3	815.9	721.1	664.8	645.6
75°	932.1	629.9	420.7	314.3	266.9	244.1	226.7	222.2
77.5°	271.8	197.6	169.9	157.3	148.0	139.9	134.1	133.7
80°	129.2	121.1	117.5	109.6	101.1	93.4	88.1	89.0
82.5°	86.7	84.5	84.5	76.4	63.0	54.1	44.7	40.2
85°	46.0	47.9	50.5	47.9	41.5	30.9	20.2	21.9
87.5°	15.7	17.9	18.8	18.3	16.6	12.5	9.4	9.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)