

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: P881731

Luminaire Tested: **NAV-SB1B-735-U-T4FT**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881731  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-735-U-T4FT  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 3500K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

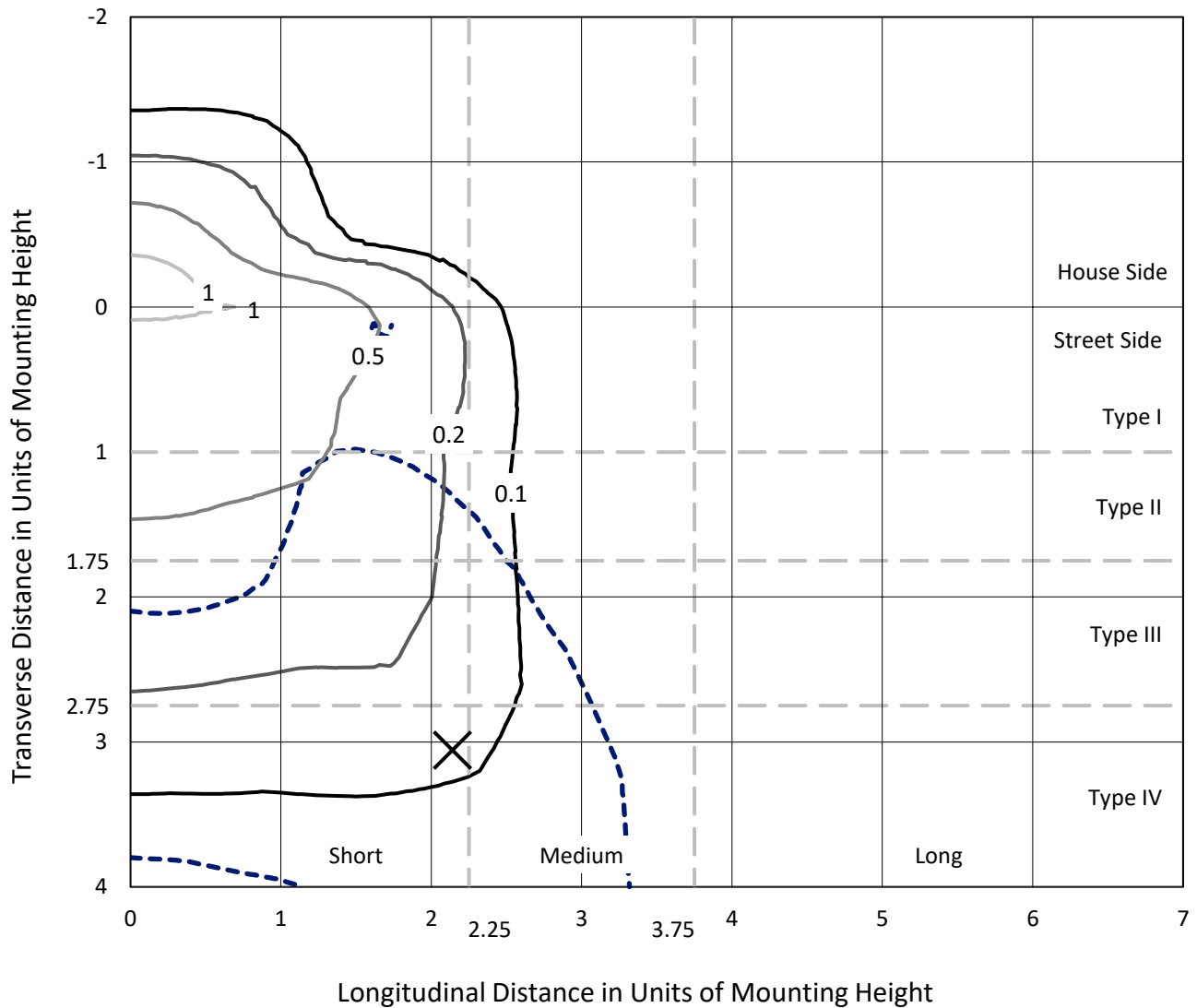
Lumens per Lamp: N/A  
Luminaire Lumens: 5570 lumens  
Efficiency: N/A  
Efficacy: 139.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 39.8  
Input Voltage (V): 120.0  
Input Current (Ain): 0.33  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 5.305  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

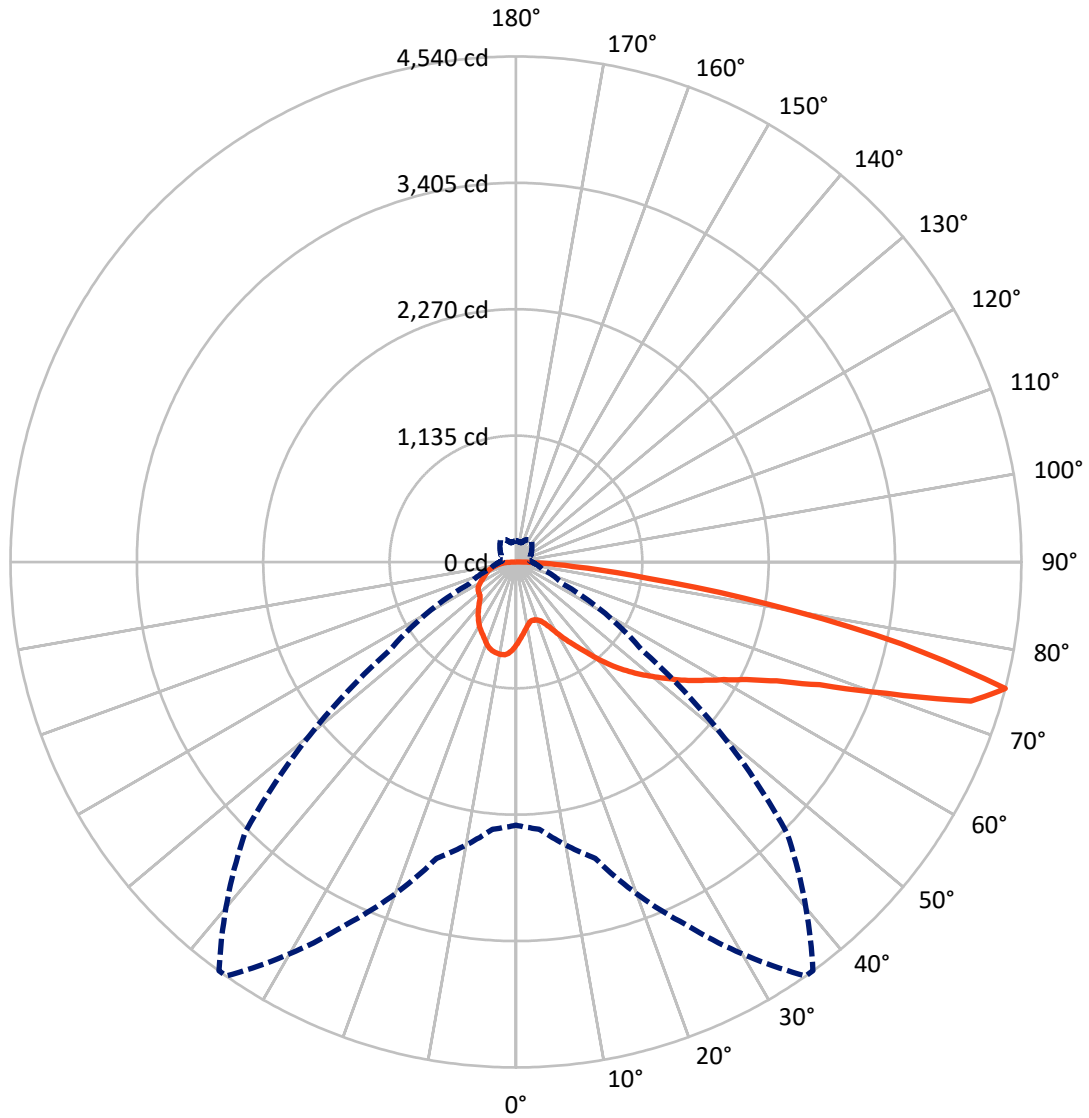
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1325.5	0.0	1325.5
	% Fixture	23.8	0.0	23.8
<b>Street Side</b>	Lumens	4244.5	0.0	4244.5
	% Fixture	76.2	0.0	76.2
<b>Total</b>	Lumens	5570.0	0.0	5570.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.3	1.3
10°-20°	202.7	3.6
20°-30°	340.4	6.1
30°-40°	529.0	9.5
40°-50°	785.2	14.1
50°-60°	1084.0	19.5
60°-70°	1315.2	23.6
70°-80°	1086.9	19.5
80°-90°	156.3	2.8
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°	5570.0	100.0
0°-180°	5570.0	100.0

**Coefficient of Utilization**



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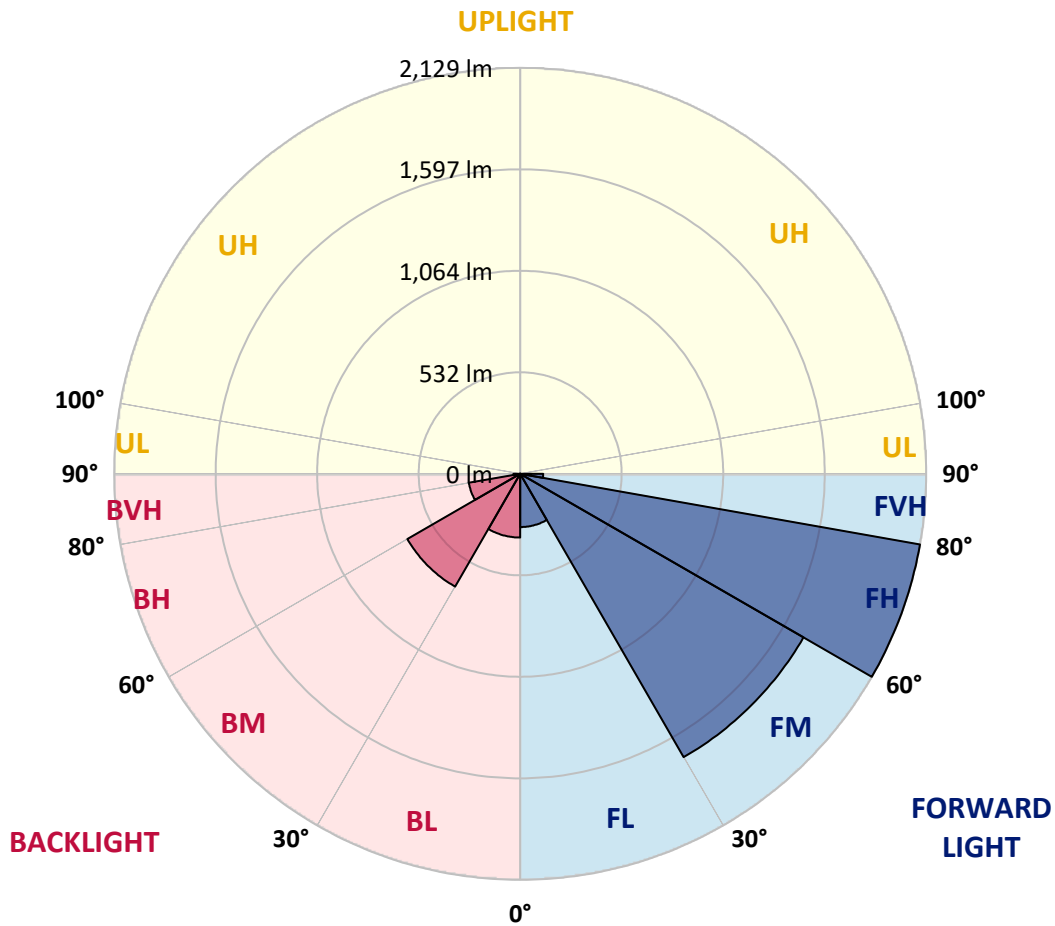
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	279.3	5.0			
FM (30°-60°)	1715.3	30.8			
FH (60°-80°)	2128.8	38.2			G2/5000
FVH (80°-90°)	121.1	2.2			G2/225
BL (0°-30°)	334.1	6.0	B1/500		
BM (30°-60°)	683.0	12.3	B1/1000		
BH (60°-80°)	273.3	4.9	B1/500		G1/500
BVH (80°-90°)	35.2	0.6			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°	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2
2.5°	684.4	688.6	690.4	689.5	694.1	693.5	699.8	707.6	718.5	729.0	744.3
5°	631.7	636.2	640.2	643.8	652.5	655.2	665.2	680.2	700.1	720.3	745.6
7.5°	582.7	586.6	592.6	599.2	614.0	616.7	633.2	656.7	684.4	713.9	748.9
10°	542.6	546.5	552.8	560.4	578.7	582.0	603.1	634.4	670.6	707.9	752.5
12.5°	525.4	526.6	530.3	537.8	553.7	555.9	579.0	614.9	657.0	703.4	757.9
15°	524.5	526.9	527.2	531.2	544.4	545.3	566.7	602.2	648.6	702.5	766.0
17.5°	533.6	535.4	532.7	535.1	546.2	547.7	564.6	596.2	645.9	706.4	779.9
20°	557.7	559.2	551.0	547.7	555.9	557.1	573.6	600.1	648.6	714.5	798.8
22.5°	608.8	609.8	589.9	576.3	576.9	577.5	592.0	616.1	659.1	729.3	822.9
25°	688.6	688.0	656.4	630.2	615.2	611.9	621.5	642.0	676.9	748.9	854.0
27.5°	782.0	777.5	745.9	706.7	673.9	669.1	667.0	675.7	702.2	774.8	891.9
30°	887.4	883.2	849.1	797.9	752.5	744.6	724.8	720.3	739.8	810.0	944.6
32.5°	1003.0	1000.3	959.6	897.6	836.8	827.8	794.3	782.3	797.6	863.3	1018.1
35°	1100.0	1097.6	1063.8	1000.0	925.6	914.5	880.5	866.9	874.7	931.6	1114.1
37.5°	1187.6	1186.4	1157.5	1107.2	1030.4	1016.9	978.6	974.1	972.6	1021.7	1230.6
40°	1268.9	1265.9	1235.8	1209.3	1152.4	1140.0	1106.3	1102.4	1090.9	1132.5	1362.5
42.5°	1358.9	1351.1	1307.4	1295.1	1279.7	1269.5	1249.3	1249.9	1224.6	1257.4	1502.2
45°	1432.4	1427.9	1383.0	1375.8	1392.3	1388.1	1405.6	1410.1	1361.0	1388.4	1647.4
47.5°	1511.3	1507.1	1469.1	1464.0	1508.9	1510.1	1571.8	1573.3	1494.1	1524.5	1792.8
50°	1608.5	1602.5	1564.9	1571.2	1621.5	1626.0	1738.9	1728.7	1616.7	1662.7	1937.1
52.5°	1672.7	1676.3	1668.2	1678.4	1747.0	1751.3	1903.3	1877.1	1738.0	1799.1	2078.6
55°	1719.9	1727.2	1752.5	1776.0	1879.5	1883.8	2058.4	2018.4	1838.6	1925.6	2211.7
57.5°	1780.8	1770.5	1817.8	1863.6	2005.4	2016.5	2209.3	2154.5	1927.7	2034.6	2302.9
60°	1868.1	1860.9	1897.6	1965.4	2146.3	2164.1	2368.8	2277.0	1993.1	2121.0	2320.7
62.5°	2045.2	2027.1	2032.8	2092.7	2324.0	2347.5	2548.9	2383.9	2025.6	2154.8	2225.5
65°	2309.8	2278.8	2249.9	2291.5	2574.2	2597.4	2752.2	2467.9	2013.5	2089.4	1972.9
67.5°	2643.2	2612.4	2576.9	2616.1	2942.8	2961.1	3003.0	2515.2	1918.7	1837.7	1526.3
70°	2918.1	2906.6	2949.1	3110.2	3531.4	3532.0	3324.6	2476.0	1658.8	1302.9	883.2
72.5°	2881.6	2874.7	3098.4	3596.5	4273.4	4257.4	3629.0	2179.7	1117.4	587.8	330.9
75°	2364.0	2408.9	2755.5	3587.7	4539.9	4537.8	3442.6	1385.7	462.2	243.6	171.0
77.5°	1267.7	1338.7	1788.9	2648.9	3544.1	3597.4	2420.3	484.8	198.4	156.0	118.3
80°	413.4	475.5	713.0	1348.7	2302.9	2293.0	1037.3	190.3	135.8	110.5	81.9
82.5°	175.5	182.8	318.6	636.9	1181.9	1163.5	330.3	109.3	95.5	75.6	50.6
85°	68.7	76.8	140.6	294.5	511.9	500.7	119.2	54.2	61.1	49.4	30.1
87.5°	22.6	27.4	50.3	100.9	159.3	153.6	29.2	18.7	26.5	22.6	10.8
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°	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2	742.2
2.5°	748.6	753.4	759.1	767.5	774.8	780.8	787.1	791.0	792.5	797.0	796.7
5°	754.0	764.5	778.7	792.5	806.1	814.2	821.4	825.0	828.4	830.8	831.4
7.5°	763.0	776.6	798.8	816.9	828.4	835.0	839.8	838.6	839.8	840.4	841.3
10°	770.8	789.8	816.3	833.5	842.2	842.5	841.3	837.1	835.0	835.3	835.9
12.5°	780.2	801.3	829.9	844.3	846.7	840.1	835.0	827.8	825.0	823.8	823.2
15°	792.8	816.9	844.6	850.0	844.0	835.6	826.9	815.1	809.1	804.3	805.8
17.5°	808.2	834.7	856.1	852.1	839.2	825.3	811.2	793.4	781.1	776.0	776.3
20°	829.6	853.4	864.8	847.6	828.1	807.0	782.9	761.2	749.8	744.6	744.0
22.5°	855.5	878.3	873.2	839.8	812.1	778.4	748.3	732.3	726.6	723.0	723.6
25°	886.5	906.0	879.2	828.4	785.9	740.4	717.2	712.1	709.4	706.7	706.7
27.5°	926.8	937.4	883.8	811.5	745.0	700.1	691.7	692.6	691.7	687.1	688.0
30°	980.1	978.0	888.0	784.1	698.0	663.7	664.3	668.2	668.8	665.8	667.3
32.5°	1050.3	1028.9	890.1	748.6	653.1	631.7	632.3	636.5	639.6	634.4	636.9
35°	1135.2	1088.2	886.8	704.0	618.5	601.3	596.8	598.0	598.9	594.1	597.4
37.5°	1234.3	1154.8	872.0	654.6	589.9	571.5	561.9	553.7	548.9	544.4	547.4
40°	1343.0	1227.3	844.9	606.4	558.0	539.9	525.4	510.1	493.8	487.8	490.5
42.5°	1456.8	1302.0	812.1	560.4	521.2	506.5	491.1	468.8	444.4	432.1	433.6
45°	1574.8	1378.5	779.9	514.9	483.6	477.3	459.5	432.7	406.2	390.5	389.3
47.5°	1690.4	1450.8	732.6	469.1	448.4	455.3	441.4	416.7	387.2	362.5	359.8
50°	1800.9	1518.5	655.2	422.8	419.7	448.7	435.4	399.9	366.2	334.5	331.8
52.5°	1910.6	1573.3	556.2	380.6	404.4	446.8	427.6	388.4	347.2	314.1	310.4
55°	2003.6	1601.6	460.7	344.5	382.1	431.5	418.2	374.9	320.4	285.2	282.1
57.5°	2056.6	1578.7	381.2	308.9	351.4	406.2	402.3	346.0	288.5	261.4	257.8
60°	2033.7	1486.0	316.2	277.9	322.2	378.8	374.6	317.4	264.1	238.5	234.9
62.5°	1907.5	1309.2	264.7	250.8	295.7	350.8	346.9	295.4	245.4	220.7	216.8
65°	1653.4	1065.0	224.6	228.2	268.9	317.1	322.8	277.0	230.7	206.6	202.6
67.5°	1261.1	771.4	193.3	208.7	242.7	283.9	300.5	263.8	218.3	195.4	191.8
70°	718.8	438.1	166.8	189.7	219.5	253.2	283.3	253.2	205.1	186.1	183.7
72.5°	272.5	201.1	144.2	170.7	197.2	227.3	264.4	236.7	189.7	175.5	173.1
75°	145.4	122.6	121.3	148.4	171.6	202.0	240.6	220.4	178.3	185.5	191.5
77.5°	99.1	86.7	101.5	127.1	143.6	174.0	215.3	195.7	154.5	153.9	141.8
80°	68.7	61.4	82.5	102.4	111.1	146.3	187.9	168.0	125.9	117.4	112.3
82.5°	41.3	40.0	61.7	76.5	78.6	112.9	155.7	140.9	103.0	89.7	90.3
85°	22.6	23.8	39.4	44.9	45.8	78.9	122.0	109.0	79.2	66.5	67.1
87.5°	6.3	8.1	14.5	17.8	22.0	41.0	72.6	64.7	39.7	27.7	27.7
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)