

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: P270249

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270249  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)  
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-5WQ-7027  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5521.8 lumens  
Efficiency: N/A  
Efficacy: 93.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G1

Input Watts (W): 59  
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

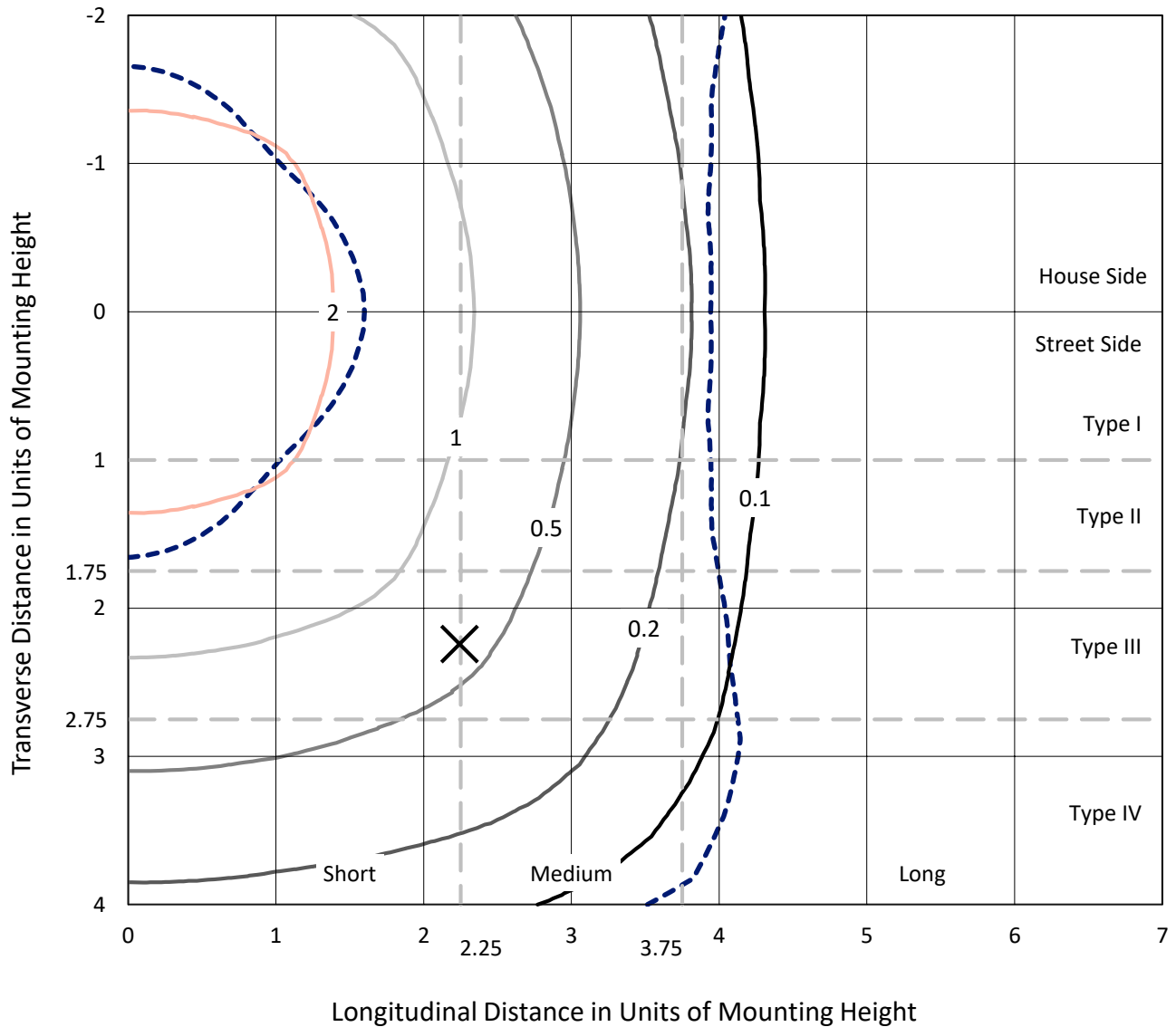


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

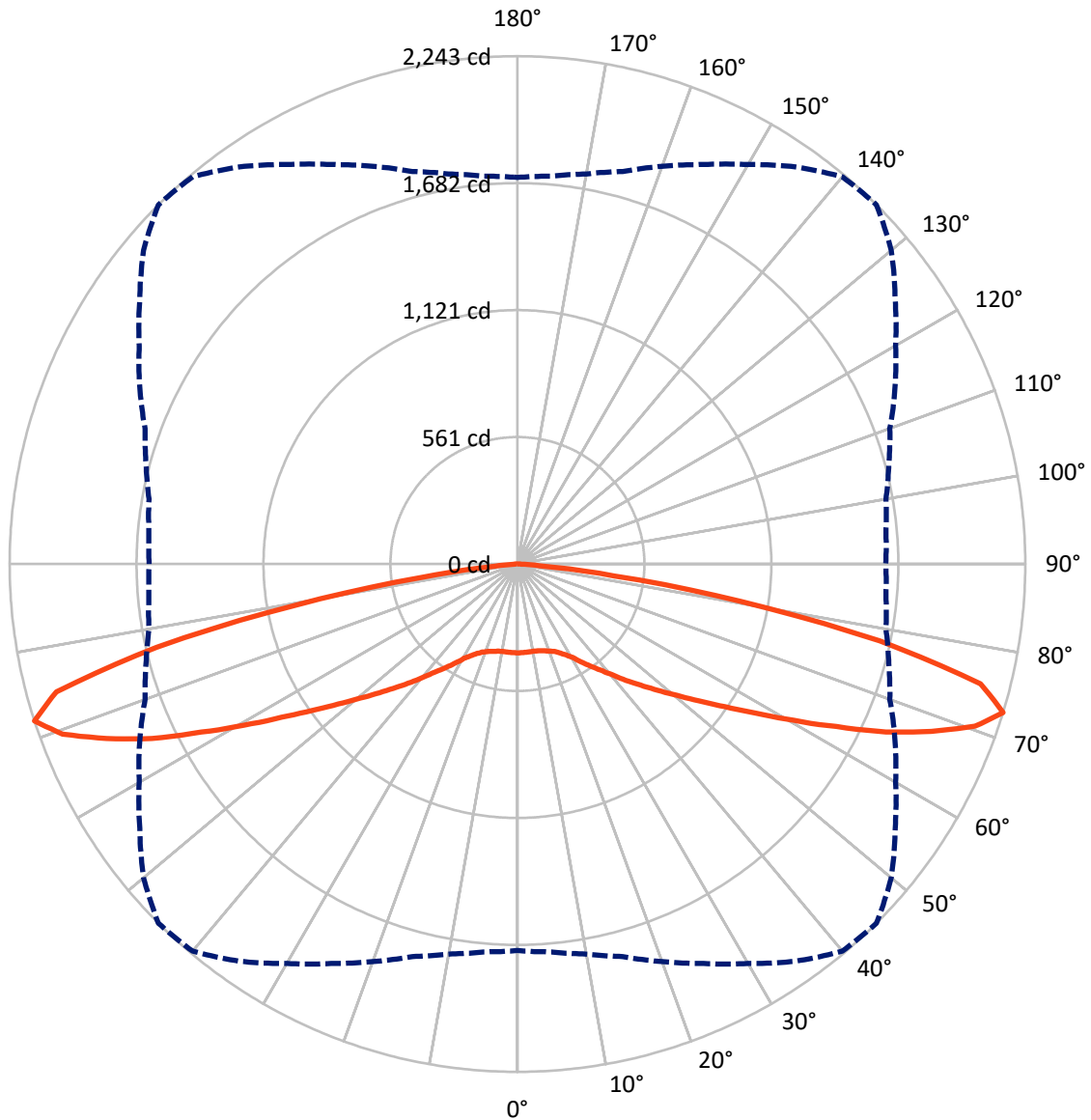


Based on 10 foot mounting height. Maximum calculated value = 3.9 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2760.9	0.0	2760.9
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2760.9	0.0	2760.9
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	5521.8	0.0	5521.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.5	0.7
10°-20°	113.4	2.1
20°-30°	204.7	3.7
30°-40°	349.2	6.3
40°-50°	594.5	10.8
50°-60°	956.8	17.3
60°-70°	1591.1	28.8
70°-80°	1539.2	27.9
80°-90°	135.5	2.5
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°	5521.8	100.0
0°-180°	5521.8	100.0



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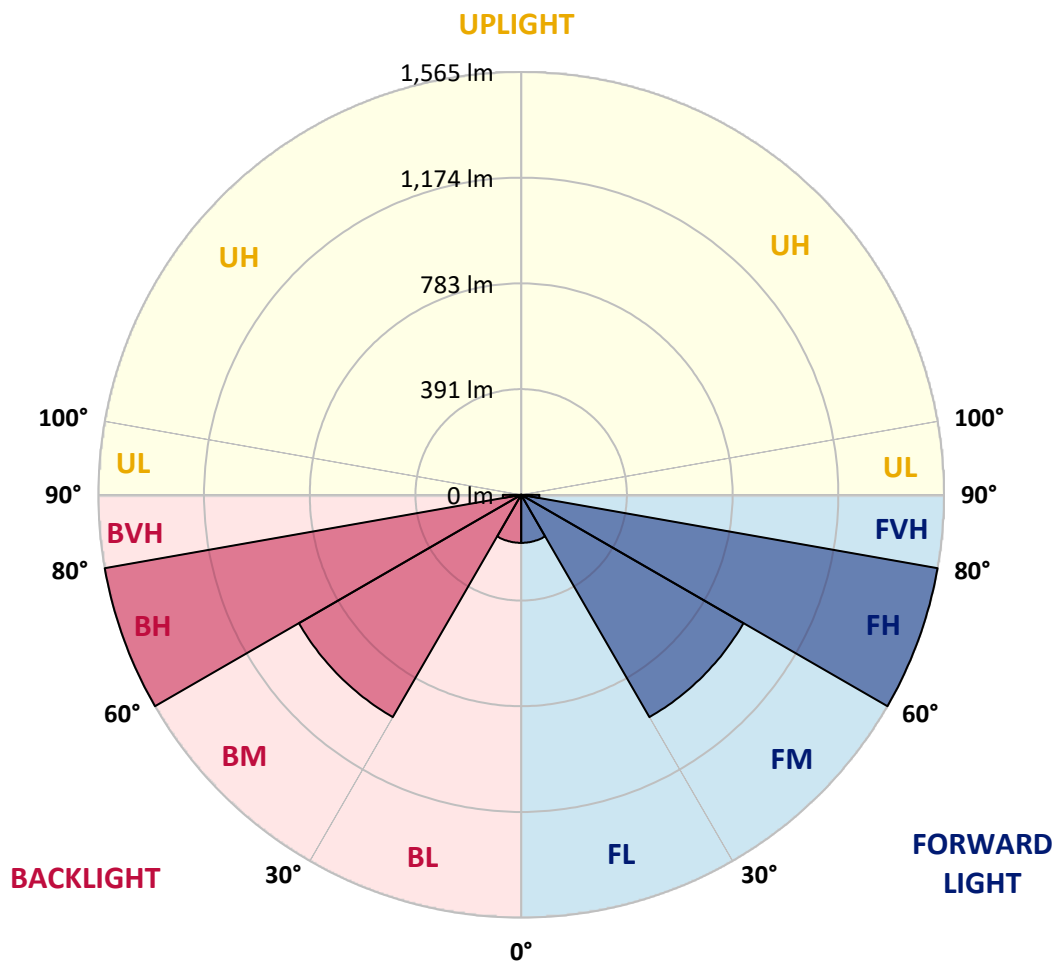
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	177.8	3.2			
FM	(30°-60°)	950.2	17.2			
FH	(60°-80°)	1565.2	28.3			G1/1800
FVH	(80°-90°)	67.7	1.2			G1/100
BL	(0°-30°)	177.8	3.2	B1/500		
BM	(30°-60°)	950.2	17.2	B1/1000		
BH	(60°-80°)	1565.2	28.3	B3/2500		G1/1800
BVH	(80°-90°)	67.7	1.2			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°	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6
2.5°	395.7	395.7	396.0	395.7	395.0	394.5	393.5	392.9	392.2	391.9	391.2
5°	396.0	396.0	396.3	396.0	395.3	394.5	393.9	392.9	392.2	391.5	391.2
7.5°	397.3	397.7	397.9	397.7	396.3	395.7	394.5	393.5	392.2	391.5	390.9
10°	400.0	400.0	400.0	399.7	398.7	397.3	396.0	395.0	393.3	391.5	390.6
12.5°	402.1	402.4	402.4	401.7	400.4	398.7	397.3	396.3	395.0	393.5	392.6
15°	405.1	405.1	404.7	403.3	401.5	400.0	399.3	398.9	398.7	397.9	397.1
17.5°	411.2	411.0	409.8	407.8	405.5	404.4	403.8	403.8	403.8	403.3	402.8
20°	420.0	420.0	418.7	415.3	413.3	412.3	411.2	411.2	411.2	410.3	409.2
22.5°	434.4	434.7	432.7	428.6	425.8	423.8	422.5	421.5	420.4	419.8	418.0
25°	453.7	453.5	450.9	445.9	443.9	441.8	439.1	437.5	436.0	435.0	433.1
27.5°	474.1	473.8	471.2	466.7	465.3	462.3	460.2	457.9	456.1	454.5	452.3
30°	500.3	498.6	496.6	493.2	492.5	490.1	487.4	483.9	481.2	478.5	476.2
32.5°	523.7	523.7	520.7	519.0	520.4	519.3	519.7	517.7	515.9	514.9	512.6
35°	556.4	556.4	555.1	552.9	553.4	550.9	550.7	550.9	552.3	552.3	549.7
37.5°	599.9	600.5	596.1	595.4	593.8	590.4	588.7	589.4	592.4	594.0	590.4
40°	654.0	655.3	654.0	649.6	647.5	641.7	638.2	638.2	640.8	642.4	641.0
42.5°	707.2	709.8	707.2	703.9	702.1	697.8	696.0	697.4	700.5	702.6	700.5
45°	766.8	768.5	765.4	761.4	759.2	756.9	756.0	756.9	760.3	762.3	761.7
47.5°	825.3	827.6	823.8	822.2	822.2	819.9	822.5	825.3	828.2	833.1	831.0
50°	882.3	885.4	883.0	883.4	886.1	890.5	895.6	901.0	906.5	911.6	912.1
52.5°	933.2	938.1	938.4	944.5	953.0	959.7	974.1	986.0	998.8	1003.3	1001.3
55°	987.0	993.4	1002.0	1011.5	1025.1	1039.0	1063.1	1084.6	1101.5	1112.1	1110.3
57.5°	1063.9	1070.3	1079.1	1094.8	1115.2	1134.2	1167.2	1200.5	1226.2	1242.3	1234.5
60°	1163.5	1170.2	1181.8	1198.3	1224.8	1250.8	1296.0	1343.9	1384.0	1402.3	1388.2
62.5°	1295.3	1301.7	1309.2	1331.3	1360.9	1394.2	1450.9	1512.4	1563.4	1581.0	1561.1
65°	1483.2	1491.0	1493.4	1511.5	1540.4	1571.2	1632.4	1701.7	1759.9	1788.7	1748.7
67.5°	1695.0	1698.1	1707.6	1728.6	1758.3	1786.1	1834.2	1899.9	1955.7	1971.6	1928.8
70°	1819.1	1825.1	1841.9	1871.0	1906.4	1950.2	2003.0	2073.6	2136.8	2144.3	2089.8
72.5°	1706.9	1719.4	1749.0	1794.5	1868.7	1946.4	2037.3	2141.6	2232.3	2242.9	2155.6
75°	1369.0	1383.3	1418.7	1468.5	1556.4	1671.8	1803.1	1959.7	2095.7	2113.1	1997.6
77.5°	729.8	747.4	798.8	866.1	991.1	1144.0	1302.1	1480.9	1596.4	1635.5	1552.2
80°	183.9	193.3	218.2	257.6	342.3	465.6	602.0	794.3	937.7	998.6	937.7
82.5°	71.3	78.5	85.2	90.1	98.3	115.3	159.1	259.3	349.4	430.3	372.4
85°	27.5	29.3	42.1	47.9	47.9	52.7	60.5	71.3	88.4	96.5	80.8
87.5°	10.9	11.9	14.6	22.5	23.0	20.4	21.7	24.4	18.7	15.6	17.6
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	392.6	392.6	392.6	392.6	392.6	392.6	392.6	392.6
2.5°	390.9	390.6	389.9	390.1	389.9	389.9	389.9	389.9
5°	390.6	390.6	389.9	389.9	389.9	390.1	389.9	389.9
7.5°	390.1	389.9	389.1	388.8	388.8	388.4	388.4	388.4
10°	389.4	388.8	388.2	387.8	387.8	387.1	387.1	387.1
12.5°	391.2	390.1	389.4	389.1	389.1	389.1	389.4	389.4
15°	396.0	393.9	392.9	392.6	392.9	393.5	393.9	394.3
17.5°	401.1	398.9	397.3	396.6	397.1	397.9	398.9	399.7
20°	407.6	405.9	403.8	403.1	403.1	404.4	405.1	406.2
22.5°	416.8	415.3	413.6	412.6	412.0	413.6	414.7	415.3
25°	431.2	430.0	428.6	427.6	427.2	428.9	429.6	430.0
27.5°	450.7	449.3	448.7	448.3	447.3	448.0	449.1	448.7
30°	475.8	476.8	475.8	475.8	474.1	474.8	474.1	473.4
32.5°	509.5	508.5	505.3	503.4	501.0	501.0	499.9	499.0
35°	543.1	539.7	538.1	539.1	538.1	538.8	536.9	535.3
37.5°	582.9	580.8	580.6	583.5	582.9	583.5	583.5	581.3
40°	635.6	634.3	636.5	641.7	643.7	643.4	644.1	641.0
42.5°	696.0	693.8	694.7	699.2	701.4	702.1	701.8	699.2
45°	756.6	757.2	757.2	762.0	764.4	765.7	763.4	762.3
47.5°	824.9	825.9	823.6	826.6	827.2	829.7	827.6	825.9
50°	903.8	900.0	894.5	895.6	895.6	894.9	892.6	890.5
52.5°	991.8	983.3	973.0	969.7	965.9	962.3	957.5	953.7
55°	1092.0	1077.3	1059.0	1050.6	1043.4	1034.9	1024.1	1020.4
57.5°	1208.3	1183.1	1158.6	1143.4	1124.9	1113.8	1099.9	1099.2
60°	1346.3	1312.2	1269.1	1246.3	1228.1	1214.7	1204.2	1200.1
62.5°	1505.6	1447.2	1400.6	1376.2	1354.7	1346.6	1333.4	1335.1
65°	1669.1	1609.7	1564.5	1544.7	1524.8	1519.3	1507.0	1511.5
67.5°	1846.2	1797.2	1747.7	1729.2	1710.9	1705.5	1692.9	1696.7
70°	2004.9	1942.8	1886.4	1850.2	1819.1	1793.8	1777.8	1771.5
72.5°	2036.5	1928.8	1840.1	1750.1	1698.1	1652.5	1633.7	1626.7
75°	1829.8	1662.8	1536.2	1430.6	1372.2	1305.9	1298.7	1288.8
77.5°	1423.5	1233.1	1080.1	944.2	865.6	784.8	756.9	735.8
80°	849.0	652.6	505.7	354.6	289.3	232.8	218.8	204.3
82.5°	303.8	194.8	131.2	102.2	91.4	84.4	78.8	71.8
85°	73.4	61.9	58.5	53.0	52.3	44.6	31.6	28.1
87.5°	23.4	21.4	21.7	20.8	21.7	16.3	13.2	11.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)