

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: P195919

Luminaire Tested: **NAV-AF-01-D-UNV-5MQ-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195919  
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-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5377.7 lumens  
Efficiency: N/A  
Efficacy: 122.2 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

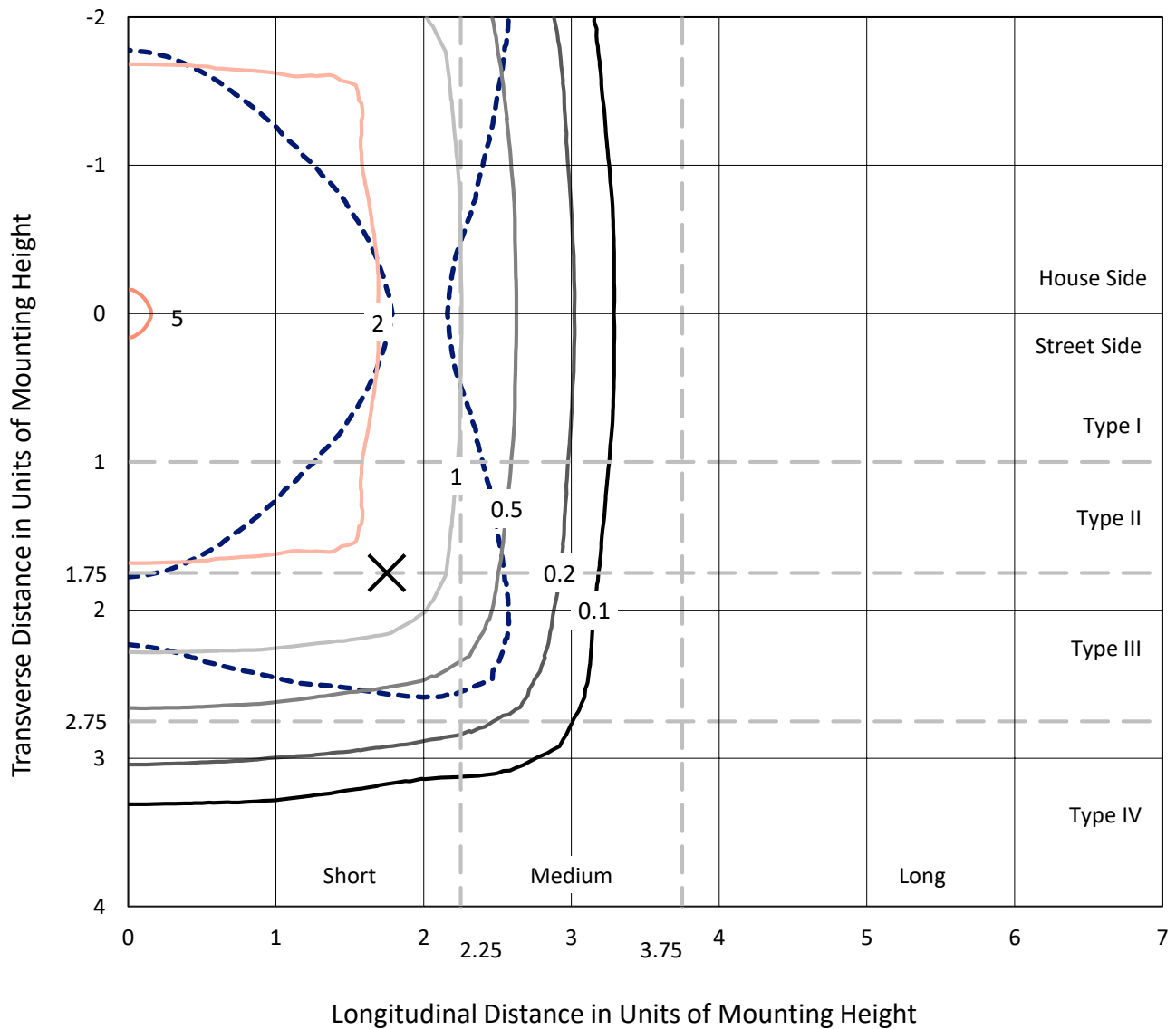
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

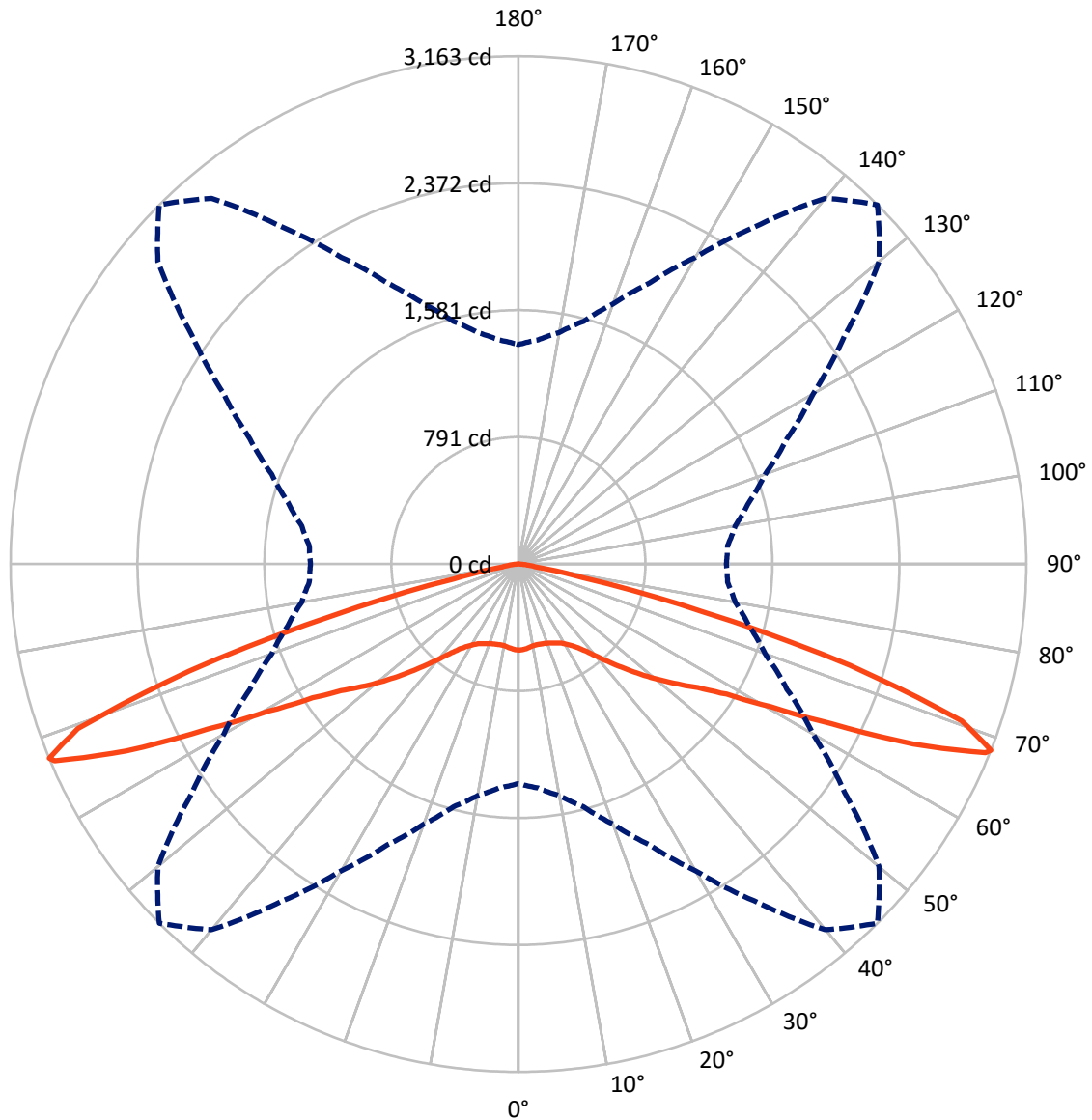
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.4 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
<b>House Side</b>	Lumens	2688.8	0.0	2688.8
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	2688.8	0.0	2688.8
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	5377.7	0.0	5377.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.2	0.9
10°-20°	145.6	2.7
20°-30°	247.5	4.6
30°-40°	405.0	7.5
40°-50°	723.8	13.5
50°-60°	1222.4	22.7
60°-70°	1895.5	35.2
70°-80°	651.7	12.1
80°-90°	35.8	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°	5377.7	100.0
0°-180°	5377.7	100.0



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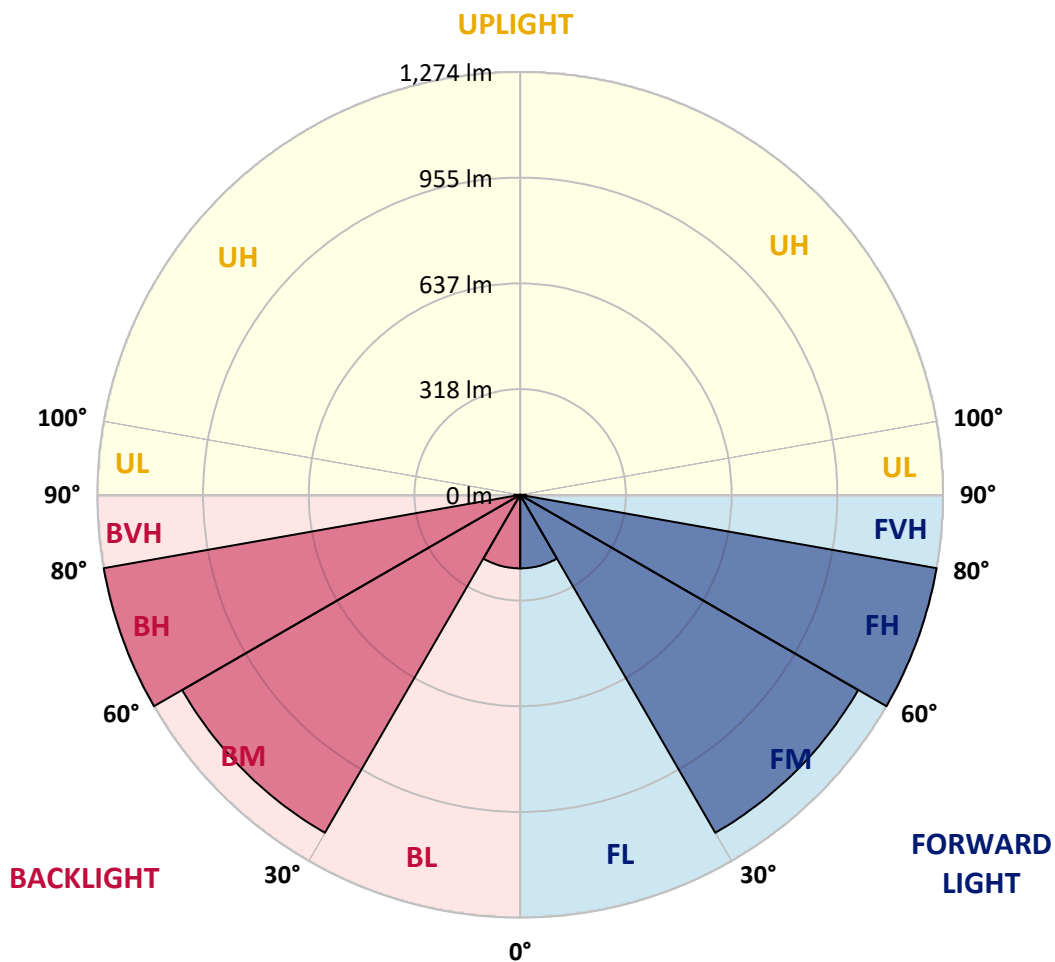
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	221.6	4.1			
FM	(30°-60°)	1175.6	21.9			
FH	(60°-80°)	1273.6	23.7			G1/1800
FVH	(80°-90°)	17.9	0.3			G1/100
BL	(0°-30°)	221.6	4.1	B1/500		
BM	(30°-60°)	1175.6	21.9	B2/2500		
BH	(60°-80°)	1273.6	23.7	B3/2500		G1/1800
BVH	(80°-90°)	17.9	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°	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4
2.5°	538.8	538.8	539.4	539.1	538.1	537.0	536.1	535.1	534.5	533.8	533.2
5°	533.2	533.2	534.1	533.5	532.9	531.8	531.2	530.2	529.5	528.9	529.2
7.5°	525.9	526.5	527.2	526.9	525.6	525.3	524.3	524.0	523.2	522.3	522.6
10°	519.7	520.0	520.6	520.3	520.0	518.9	518.6	518.3	518.0	516.7	516.4
12.5°	513.4	514.0	514.7	515.1	514.7	515.1	515.4	515.7	515.4	514.7	514.7
15°	508.4	509.1	510.0	511.1	511.4	513.4	514.7	516.0	517.0	517.3	516.4
17.5°	505.8	506.8	508.1	510.0	511.8	514.0	516.4	518.3	520.0	520.3	519.4
20°	505.4	506.5	508.4	510.8	513.7	516.7	520.3	523.2	524.9	525.9	524.9
22.5°	507.8	509.1	511.8	514.7	518.3	522.3	526.9	530.2	533.5	534.8	533.8
25°	514.3	515.7	518.6	522.3	526.2	531.2	535.8	540.0	543.4	545.0	543.7
27.5°	528.3	528.6	531.8	535.8	540.4	544.6	550.6	552.6	555.3	556.9	555.3
30°	547.6	548.3	551.3	557.5	561.8	567.4	570.7	572.6	575.6	577.3	575.3
32.5°	577.3	578.0	580.5	586.5	590.4	594.7	598.6	600.0	602.9	605.0	602.6
35°	619.1	620.4	622.7	626.7	629.9	633.2	636.2	635.3	637.2	639.9	637.5
37.5°	676.4	676.1	676.7	679.6	683.0	685.0	689.6	687.2	689.3	691.5	690.2
40°	743.3	743.3	742.9	748.2	749.5	751.5	756.4	753.4	756.1	758.7	756.4
42.5°	819.3	820.6	822.2	826.5	830.2	830.8	833.1	831.9	835.1	837.4	835.1
45°	906.9	908.9	910.8	920.8	922.4	923.7	925.4	921.1	924.6	926.7	926.0
47.5°	997.8	1001.4	1005.7	1015.9	1022.4	1025.4	1026.7	1021.8	1022.1	1025.1	1025.4
50°	1100.5	1104.5	1108.8	1120.3	1126.6	1131.8	1133.4	1127.9	1128.5	1130.9	1131.5
52.5°	1195.4	1200.0	1209.2	1224.7	1233.6	1242.8	1243.5	1236.5	1239.5	1241.1	1239.8
55°	1284.6	1290.6	1302.7	1323.5	1339.7	1357.8	1365.9	1358.4	1358.4	1357.0	1356.4
57.5°	1388.7	1395.3	1407.8	1431.8	1454.2	1480.2	1502.6	1510.2	1524.0	1528.6	1521.4
60°	1545.5	1552.3	1565.2	1596.8	1625.2	1663.0	1699.8	1729.8	1778.6	1804.9	1781.2
62.5°	1688.7	1699.2	1729.5	1784.8	1846.1	1916.2	1997.5	2055.5	2144.1	2188.2	2128.7
65°	1656.1	1677.4	1736.8	1823.7	1950.2	2102.3	2267.9	2427.0	2610.1	2704.0	2582.7
67.5°	1446.7	1464.8	1528.6	1629.8	1787.5	1997.2	2254.8	2584.1	2961.7	3137.6	2923.2
68°	1366.7	1400.5	1464.0	1564.5	1723.6	1929.7	2204.7	2560.3	2972.6	3162.7	2931.2
70°	1047.8	1060.0	1120.9	1211.2	1382.7	1585.0	1862.6	2267.9	2733.8	2929.5	2691.4
72.5°	497.9	505.1	544.6	633.6	742.6	907.3	1152.3	1534.5	1954.4	2157.9	1920.5
75°	182.4	184.1	193.3	214.4	255.2	317.1	434.7	672.5	995.5	1187.1	999.4
77.5°	98.5	98.8	102.4	107.7	114.9	123.2	141.0	189.0	304.9	414.9	322.0
80°	61.9	61.6	65.2	69.5	74.5	78.4	80.0	85.6	96.5	112.9	103.7
82.5°	31.6	34.6	42.8	47.5	54.6	56.0	54.3	54.0	57.3	61.9	63.9
85°	17.5	15.4	22.7	30.3	32.9	34.0	34.3	32.2	31.6	31.0	32.6
87.5°	8.9	8.2	9.9	15.1	16.2	13.2	13.5	11.6	7.9	7.9	8.2
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°	536.4	536.4	536.4	536.4	536.4	536.4	536.4	536.4
2.5°	532.4	532.9	532.1	532.1	532.1	532.4	532.1	531.8
5°	528.3	528.9	528.9	529.2	529.5	529.5	529.5	529.5
7.5°	521.9	522.3	522.9	522.9	522.9	522.9	522.9	522.9
10°	516.0	515.4	515.1	514.3	514.3	513.4	513.7	514.0
12.5°	513.0	511.8	511.1	510.0	509.4	508.4	508.4	508.8
15°	514.3	512.4	510.5	509.7	509.1	508.4	507.8	508.1
17.5°	517.0	514.7	512.4	511.1	509.7	508.8	508.4	508.8
20°	522.6	519.4	515.7	513.4	510.8	510.0	509.1	510.0
22.5°	530.2	526.2	521.6	517.3	514.3	513.0	511.8	512.7
25°	539.4	535.1	530.5	525.6	522.3	521.3	519.7	519.7
27.5°	552.3	548.6	544.6	540.0	536.7	535.8	533.2	533.2
30°	572.6	569.1	565.4	561.5	558.1	557.2	553.9	553.9
32.5°	599.7	595.7	593.4	590.1	587.5	585.8	581.9	581.5
35°	635.9	632.3	632.0	629.6	627.0	627.4	623.4	622.7
37.5°	687.9	685.0	686.0	683.9	681.7	683.6	681.3	681.3
40°	754.4	753.4	754.4	753.1	753.4	753.8	751.8	752.5
42.5°	834.8	832.2	838.1	837.4	836.5	839.0	834.4	831.1
45°	927.3	926.4	932.2	933.2	931.3	932.9	924.6	924.3
47.5°	1027.8	1027.8	1033.1	1032.4	1030.4	1030.7	1020.8	1014.6
50°	1132.5	1131.8	1137.1	1135.8	1133.1	1132.8	1122.6	1116.3
52.5°	1241.5	1241.5	1249.0	1245.4	1239.2	1236.2	1223.7	1215.5
55°	1362.0	1360.3	1362.7	1350.8	1338.6	1329.7	1314.3	1308.0
57.5°	1514.5	1495.3	1478.9	1463.7	1446.7	1436.1	1418.0	1411.4
60°	1730.8	1679.8	1657.7	1627.4	1599.1	1585.0	1560.9	1548.0
62.5°	2030.5	1945.9	1885.9	1819.1	1754.6	1709.0	1672.5	1656.4
65°	2376.9	2192.5	2040.1	1896.8	1775.2	1678.8	1625.2	1608.3
67.5°	2508.7	2170.1	1907.0	1701.5	1554.0	1439.1	1374.8	1361.3
68°	2480.7	2118.7	1845.4	1635.0	1486.9	1370.9	1307.0	1294.9
70°	2188.2	1787.5	1499.0	1289.5	1151.2	1041.0	995.8	976.4
72.5°	1491.8	1148.0	880.6	704.4	601.0	531.2	489.7	475.5
75°	686.6	464.0	309.9	231.5	196.6	179.8	166.9	163.7
77.5°	200.2	145.6	125.1	115.9	109.0	103.1	98.8	98.5
80°	95.1	89.2	86.6	80.7	74.5	68.8	64.9	65.6
82.5°	63.9	62.2	62.2	56.3	46.4	39.9	32.9	29.7
85°	34.0	35.2	37.2	35.2	30.6	22.7	14.8	16.2
87.5°	11.6	13.2	13.8	13.5	12.2	9.2	7.0	7.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)