

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: P881540

Luminaire Tested: **NAV-SB1A-727-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881540  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1A-727-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 2700K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

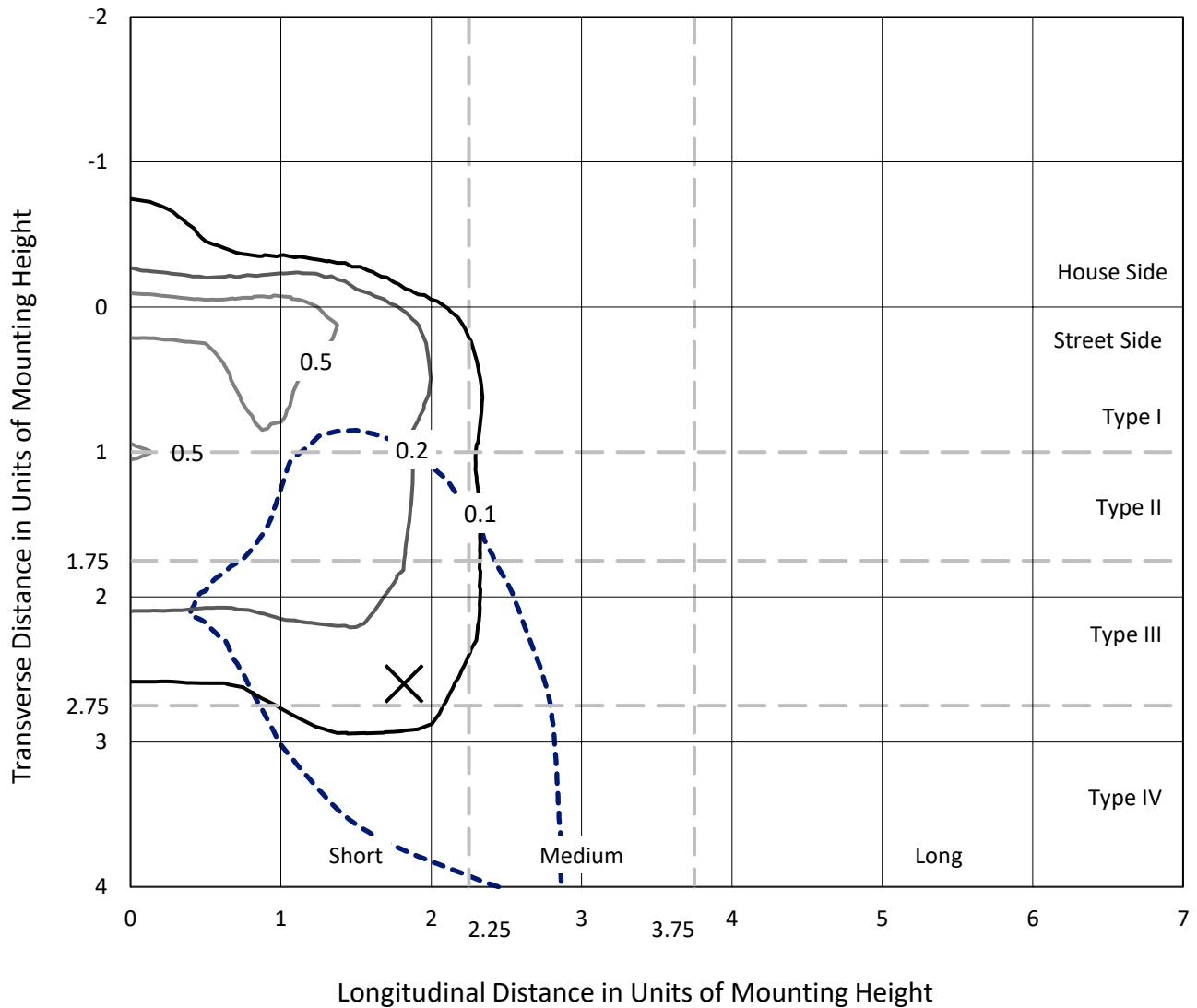
Lumens per Lamp: N/A  
Luminaire Lumens: 3081 lumens  
Efficiency: N/A  
Efficacy: 99.7 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B0 - U0 - G1  
  
Input Watts (W): 30.9  
Input Voltage (V): 120.0  
Input Current (Ain): 0.263  
Voltage Rise (V): NR  
Power Factor: 0.995  
Total Harmonic Distortion (THDi): 6.356  
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

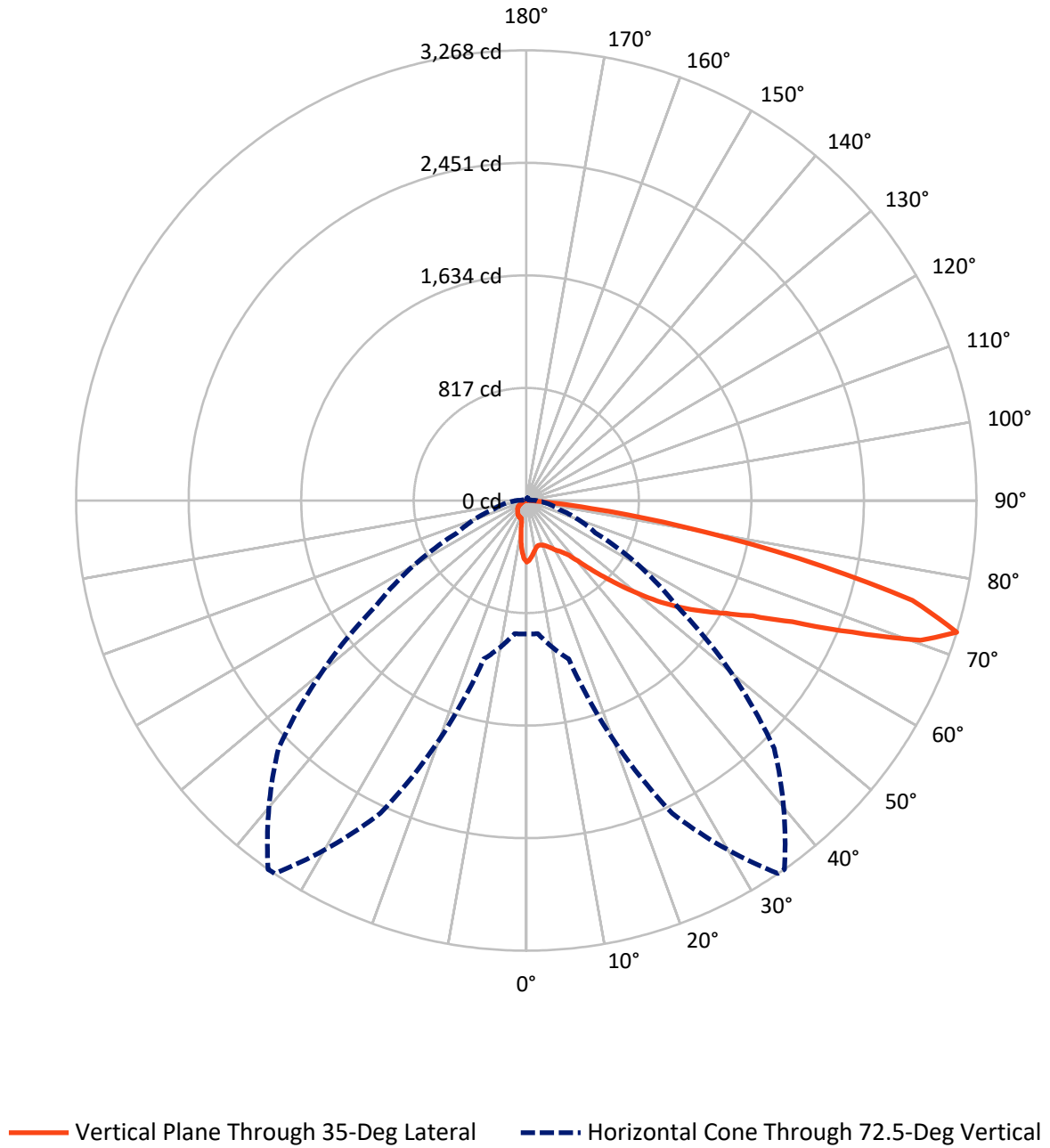
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	346.7	0.0	346.7
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	2734.2	0.0	2734.2
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	3081.0	0.0	3081.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.7	1.2
10°-20°	85.8	2.8
20°-30°	139.4	4.5
30°-40°	232.7	7.6
40°-50°	440.2	14.3
50°-60°	699.5	22.7
60°-70°	865.3	28.1
70°-80°	537.9	17.5
80°-90°	43.5	1.4
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°	3081.0	100.0
0°-180°	3081.0	100.0

**Coefficient of Utilization**



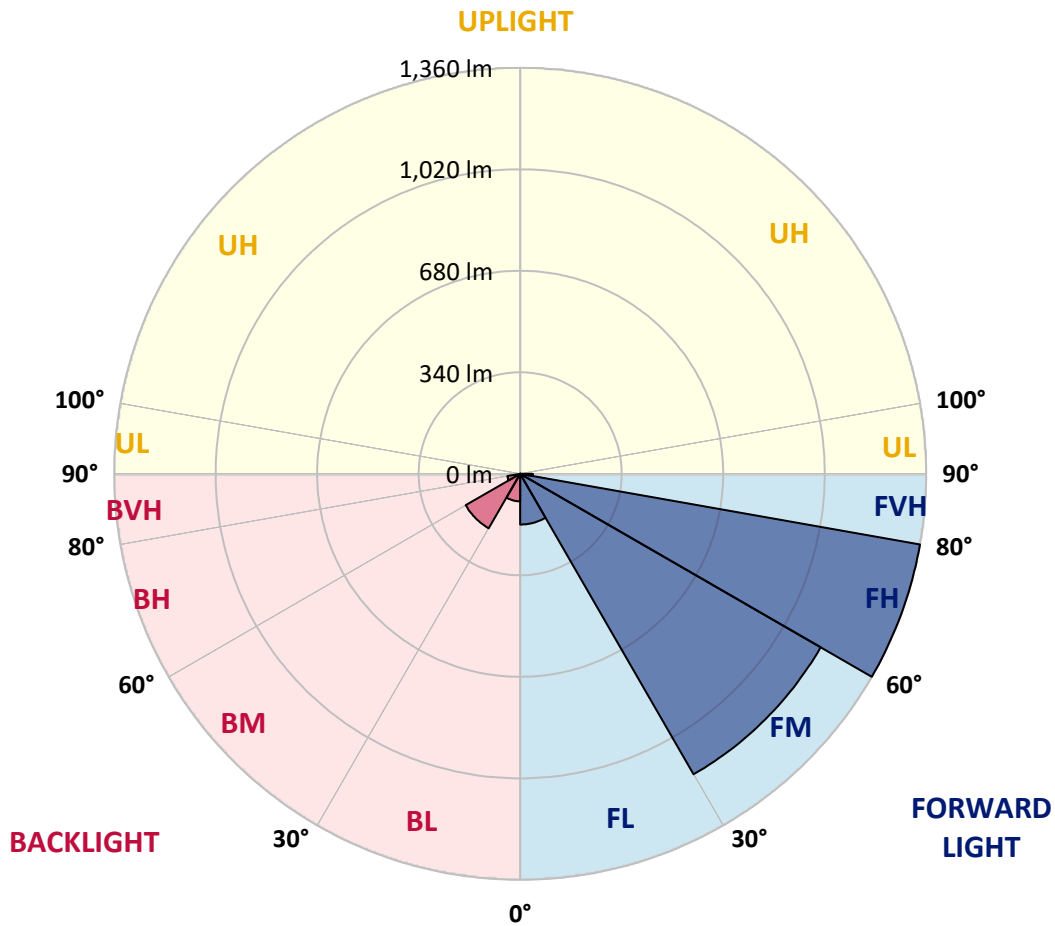
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	169.8	5.5			
FM (30°-60°)	1161.8	37.7			
FH (60°-80°)	1359.7	44.1			G1/1800
FVH (80°-90°)	42.9	1.4			G1/100
BL (0°-30°)	92.1	3.0	B0/110		
BM (30°-60°)	210.5	6.8	B0/220		
BH (60°-80°)	43.5	1.4	B0/110		G0/110
BVH (80°-90°)	0.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B0-U0-G1**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	446.5	446.5	446.5	446.5	446.5	446.5	446.5	446.5	446.5	446.5	446.5
2.5°	426.7	430.3	431.0	432.1	432.1	433.4	435.7	438.9	444.1	446.8	448.6
5°	393.3	396.0	399.4	402.1	407.3	407.9	416.7	425.3	437.3	446.3	452.6
7.5°	359.6	362.8	367.3	373.8	380.6	382.7	396.0	410.4	429.4	446.3	456.9
10°	335.9	336.1	340.2	346.8	357.6	360.1	376.3	396.9	420.6	443.6	461.0
12.5°	322.6	324.2	326.0	331.0	341.3	342.9	360.3	384.5	411.8	442.0	465.7
15°	322.6	323.7	324.9	327.3	335.7	337.0	352.4	376.6	407.3	442.7	473.4
17.5°	326.0	327.8	326.9	329.8	338.6	339.5	353.1	374.3	407.0	447.0	485.1
20°	334.1	335.5	333.7	335.5	344.3	346.1	360.1	378.6	410.9	454.4	499.8
22.5°	347.0	347.7	343.4	344.7	353.8	356.0	372.3	390.8	420.1	466.4	519.5
25°	363.2	364.6	358.0	359.6	368.2	370.9	389.7	409.1	434.8	482.9	544.5
27.5°	382.0	382.7	377.0	376.8	387.8	391.7	410.6	431.6	454.4	503.7	576.1
30°	403.4	405.5	400.0	399.1	413.1	416.3	435.0	459.4	483.3	534.8	621.0
32.5°	420.4	421.9	418.8	421.0	435.3	437.7	464.6	498.7	528.7	579.1	682.2
35°	444.7	445.6	438.4	442.5	458.7	465.1	505.0	553.8	585.8	634.6	762.1
37.5°	533.0	533.0	502.3	482.2	497.8	503.4	560.3	623.1	656.3	709.1	862.8
40°	655.1	653.1	608.2	567.1	565.1	576.1	639.1	710.4	747.2	798.5	976.2
42.5°	785.4	782.2	721.1	680.4	673.6	677.5	730.1	818.1	855.6	907.5	1098.1
45°	901.0	900.1	844.1	789.5	777.3	789.5	843.6	944.1	971.0	1025.6	1219.7
47.5°	997.8	997.8	957.0	921.3	915.0	922.2	997.4	1083.8	1081.4	1151.3	1338.3
50°	1109.4	1108.4	1069.6	1054.3	1060.8	1071.0	1174.4	1231.0	1195.6	1274.8	1444.1
52.5°	1187.5	1192.9	1179.6	1177.1	1210.5	1228.1	1354.1	1375.1	1297.9	1392.0	1523.4
55°	1249.3	1255.6	1271.0	1288.4	1352.7	1375.7	1528.1	1511.6	1383.4	1493.6	1569.0
57.5°	1336.9	1327.9	1351.6	1385.9	1490.0	1517.7	1696.8	1640.5	1452.3	1576.0	1574.0
60°	1443.2	1444.6	1448.7	1492.0	1627.0	1662.7	1862.9	1762.5	1496.5	1626.6	1518.9
62.5°	1571.0	1573.0	1581.4	1648.0	1811.0	1844.6	2039.9	1862.2	1516.8	1612.3	1376.6
65°	1562.2	1570.8	1664.0	1891.8	2090.7	2123.9	2246.5	1932.2	1486.1	1482.3	1120.9
67.5°	1423.1	1437.1	1593.1	2183.0	2512.4	2549.4	2496.2	1946.0	1353.6	1152.7	731.2
70°	1240.7	1245.7	1433.3	2444.9	3000.7	3038.2	2719.7	1794.5	1027.2	642.9	327.6
72.5°	968.9	970.1	1190.2	2505.6	3265.7	3267.8	2544.2	1332.2	552.4	247.0	113.8
75°	692.2	685.4	797.1	2032.0	2873.2	2896.2	1907.4	624.9	211.1	116.7	56.7
77.5°	371.1	378.6	451.1	1205.1	1984.8	2024.1	1040.7	180.2	107.5	79.5	37.5
80°	114.7	121.0	184.9	551.7	1124.3	1148.0	385.8	80.1	75.0	56.7	24.6
82.5°	36.1	37.5	86.2	231.8	466.6	477.5	111.7	45.4	51.2	37.5	14.4
85°	10.4	10.6	38.4	86.5	115.4	117.6	31.4	17.6	29.3	23.3	7.4
87.5°	1.1	3.6	14.4	14.4	10.2	9.9	3.4	3.8	8.4	2.9	1.4
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°	446.5	446.5	446.5	446.5	446.5	446.5	446.5	446.5	446.5	446.5	446.5
2.5°	447.4	447.7	444.7	439.8	434.3	429.8	424.2	419.7	416.5	415.6	417.2
5°	450.6	449.0	440.7	425.5	407.5	391.9	374.5	360.8	351.7	347.9	349.2
7.5°	455.3	450.8	432.5	402.7	368.2	337.5	306.3	282.2	266.8	259.2	260.3
10°	459.4	450.4	419.0	369.8	317.0	270.5	228.5	199.3	183.1	175.4	175.6
12.5°	463.2	450.2	401.4	330.7	259.2	202.3	163.2	148.8	144.3	142.7	142.2
15°	470.5	450.8	379.3	286.0	201.6	152.8	138.6	138.4	139.3	138.8	138.6
17.5°	480.4	451.5	354.2	238.6	155.5	134.8	134.1	136.1	137.5	136.8	136.6
20°	493.3	454.2	327.6	191.7	133.6	130.3	131.8	133.6	134.8	133.6	133.4
22.5°	511.3	459.0	298.4	154.0	126.6	127.6	128.9	130.9	132.1	130.5	130.3
25°	533.5	466.4	269.8	133.9	123.3	124.4	126.4	128.7	130.0	128.5	128.2
27.5°	562.1	478.4	243.4	129.4	119.9	120.6	123.5	126.9	128.7	126.6	126.6
30°	603.7	498.0	220.6	131.4	117.8	116.3	120.3	125.1	127.1	125.3	125.1
32.5°	658.7	525.8	206.6	134.5	116.9	111.3	115.1	121.2	124.6	123.5	123.5
35°	731.0	568.0	201.1	138.2	116.3	106.1	108.8	115.4	121.2	122.4	122.4
37.5°	818.6	626.7	202.7	139.7	114.2	101.8	103.2	108.8	116.5	120.1	121.0
40°	918.1	695.1	211.8	138.2	112.0	98.2	98.4	102.7	109.5	114.9	116.7
42.5°	1020.9	775.0	228.5	132.3	109.9	95.0	94.4	97.3	101.8	105.7	107.2
45°	1118.6	857.2	244.9	124.2	107.5	91.9	90.3	91.4	92.3	93.9	94.8
47.5°	1203.9	915.0	240.2	116.7	104.1	88.3	85.6	85.1	82.4	82.2	81.9
50°	1262.9	927.6	213.3	109.3	99.1	84.2	79.9	77.2	72.5	70.2	70.4
52.5°	1281.6	877.7	174.3	101.8	91.0	78.8	72.7	68.4	62.5	60.5	60.3
55°	1256.8	780.0	139.3	92.8	79.7	71.6	64.8	59.1	54.4	51.9	51.9
57.5°	1196.0	655.6	110.2	82.2	67.7	63.4	56.7	51.0	47.0	44.5	44.0
60°	1095.4	520.6	87.1	69.5	57.8	54.6	47.6	44.0	40.4	37.5	36.8
62.5°	942.5	371.6	68.4	55.1	48.3	44.7	40.6	37.9	33.6	29.6	28.9
65°	735.5	227.3	52.8	40.4	38.8	37.0	34.5	32.1	26.9	22.8	22.1
67.5°	463.9	107.7	37.7	30.5	30.7	29.8	28.7	26.6	22.8	19.2	18.7
70°	204.3	52.1	24.8	23.3	22.8	22.8	23.7	23.0	19.4	16.0	15.4
72.5°	69.5	28.0	18.5	17.6	16.5	16.3	19.9	19.2	15.6	12.4	11.7
75°	36.3	18.7	13.5	12.6	9.9	12.0	15.8	14.9	11.1	8.1	7.4
77.5°	23.7	13.3	9.3	8.1	5.6	7.9	11.7	10.4	6.5	4.1	3.6
80°	14.9	8.8	5.4	3.8	2.7	4.3	6.3	4.5	2.5	0.9	0.7
82.5°	7.9	4.5	2.0	1.4	1.1	1.4	1.6	1.1	0.5	0.0	0.0
85°	3.2	1.6	0.7	0.5	0.2	0.0	0.5	0.2	0.0	0.0	0.0
87.5°	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)