

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: P881771

Luminaire Tested: **NAV-SB1B-827-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881771
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-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 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: 4526 lumens
Efficiency: N/A
Efficacy: 113.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

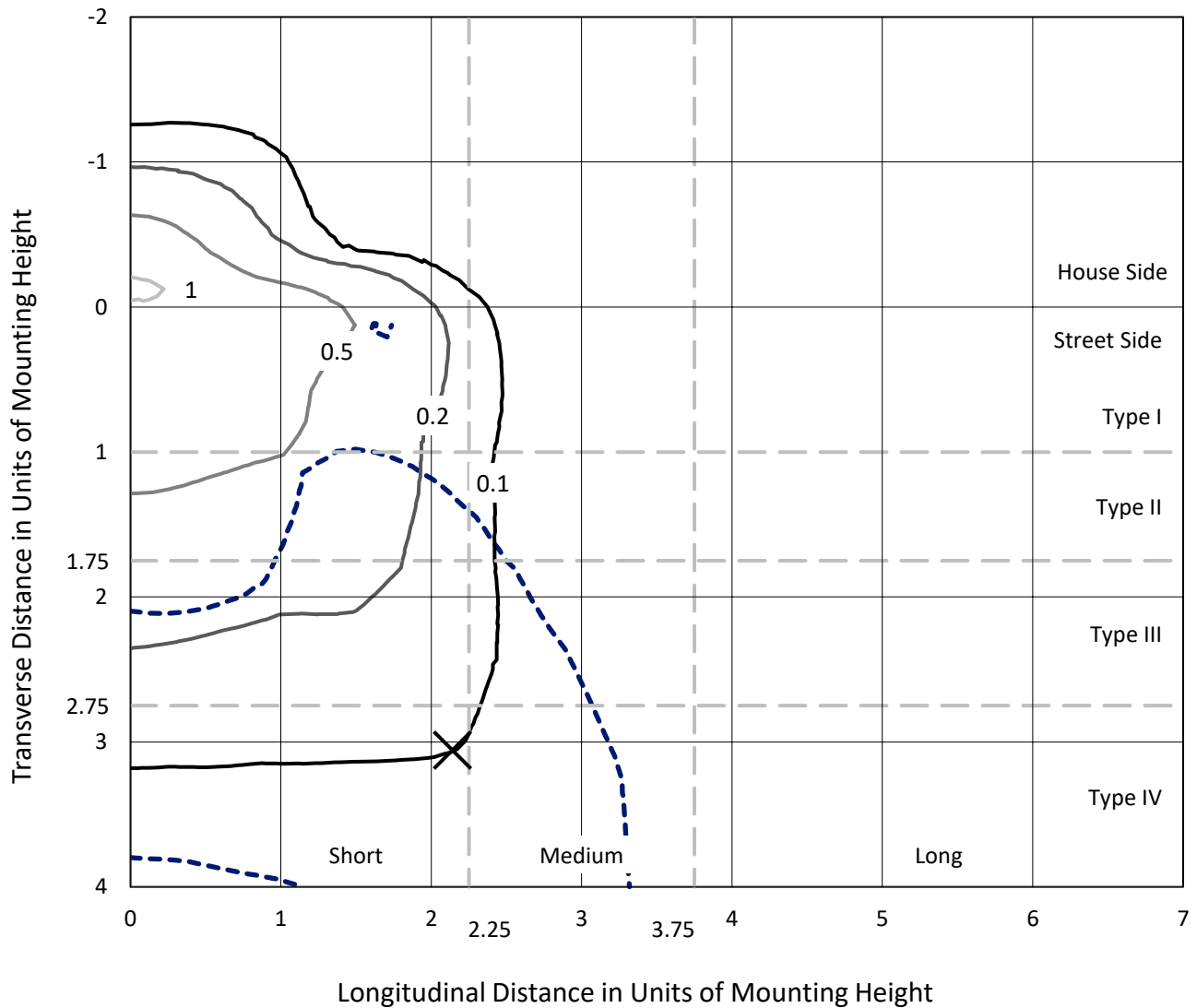
Input Watts (W): 39.8
Input Voltage (V): 120.0
Input Current (Ain): 0.33
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.305
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

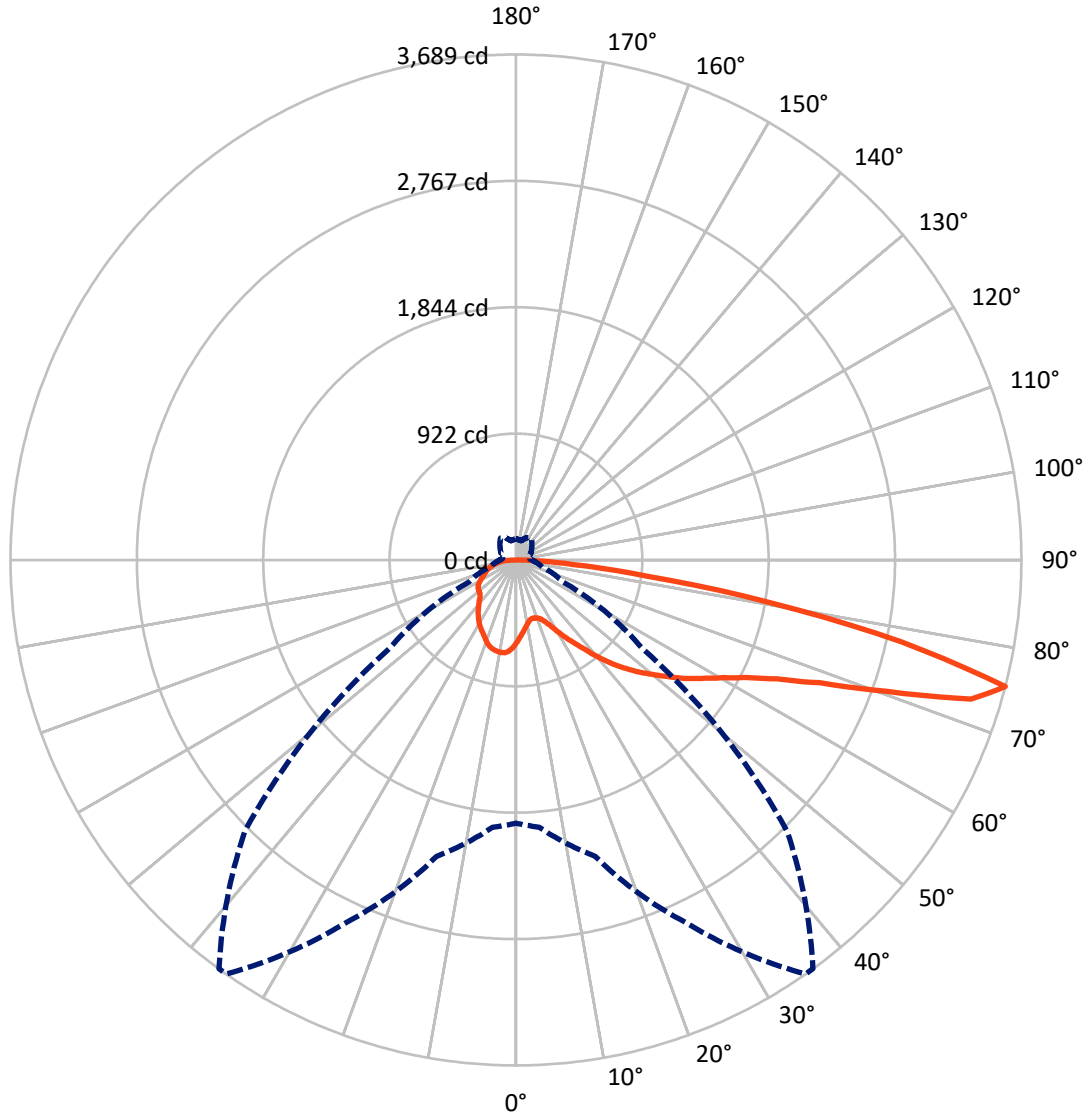
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 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
House Side	Lumens	1077.1	0.0	1077.1
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	3448.9	0.0	3448.9
	% Fixture	76.2	0.0	76.2
Total	Lumens	4526.0	0.0	4526.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.1	1.3
10°-20°	164.7	3.6
20°-30°	276.6	6.1
30°-40°	429.9	9.5
40°-50°	638.0	14.1
50°-60°	880.8	19.5
60°-70°	1068.7	23.6
70°-80°	883.2	19.5
80°-90°	127.0	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°	4526.0	100.0
0°-180°	4526.0	100.0

Coefficient of Utilization



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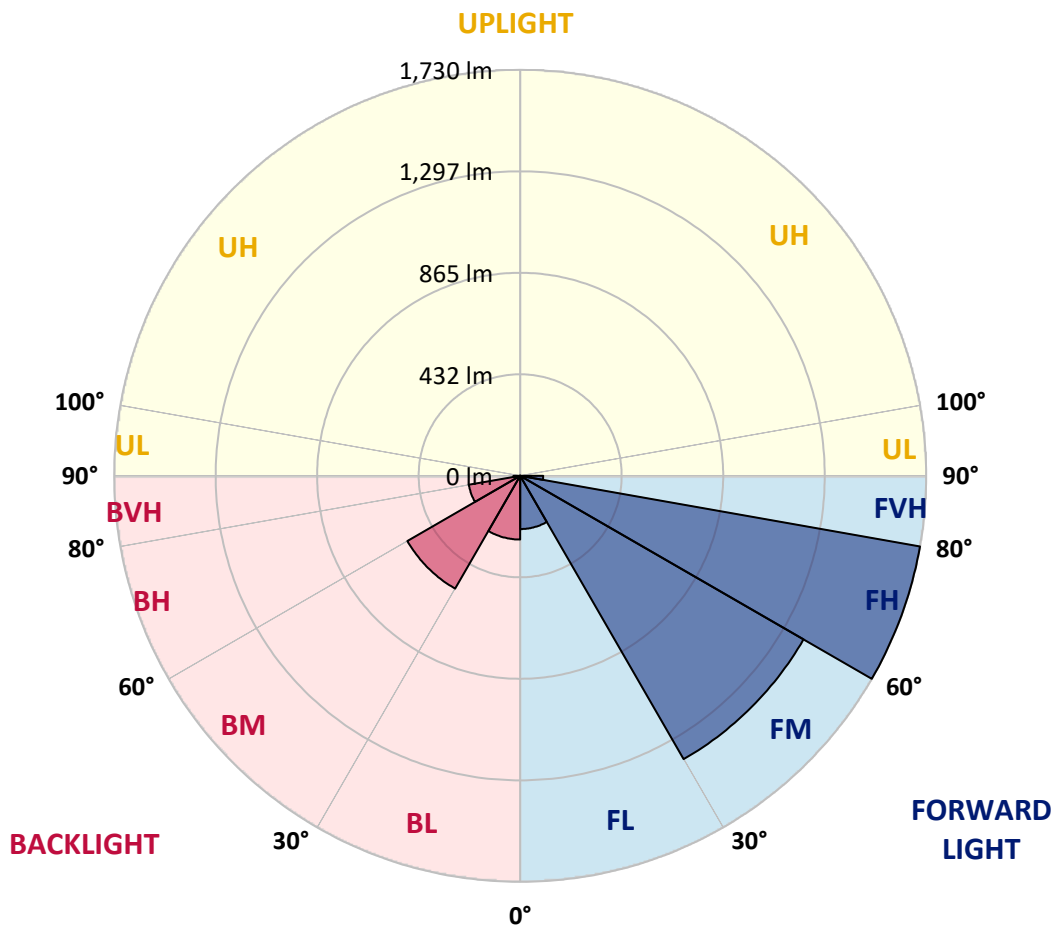
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	227.0	5.0			
FM (30°-60°)	1393.8	30.8			
FH (60°-80°)	1729.8	38.2			G1/1800
FVH (80°-90°)	98.4	2.2			G1/100
BL (0°-30°)	271.4	6.0	B1/500		
BM (30°-60°)	555.0	12.3	B1/1000		
BH (60°-80°)	222.1	4.9	B1/500		G1/500
BVH (80°-90°)	28.6	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-G1

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	603.1	603.1	603.1	603.1	603.1	603.1	603.1	603.1	603.1	603.1	603.1
2.5°	556.1	559.6	561.0	560.3	564.0	563.5	568.6	575.0	583.8	592.4	604.8
5°	513.3	517.0	520.2	523.1	530.2	532.4	540.5	552.7	568.9	585.3	605.8
7.5°	473.4	476.6	481.5	486.9	498.9	501.1	514.5	533.6	556.1	580.1	608.5
10°	440.9	444.1	449.2	455.3	470.3	473.0	490.1	515.5	544.9	575.2	611.4
12.5°	427.0	427.9	430.9	437.0	450.0	451.7	470.5	499.6	533.9	571.6	615.8
15°	426.2	428.2	428.4	431.6	442.4	443.1	460.5	489.3	527.0	570.8	622.4
17.5°	433.6	435.0	432.8	434.8	443.8	445.1	458.8	484.5	524.8	574.0	633.7
20°	453.1	454.4	447.8	445.1	451.7	452.6	466.1	487.6	527.0	580.6	649.1
22.5°	494.7	495.5	479.3	468.3	468.8	469.3	481.0	500.6	535.6	592.6	668.7
25°	559.6	559.1	533.4	512.1	499.9	497.2	505.0	521.6	550.0	608.5	693.9
27.5°	635.4	631.7	606.1	574.2	547.6	543.7	542.0	549.0	570.6	629.5	724.7
30°	721.1	717.6	690.0	648.4	611.4	605.1	588.9	585.3	601.2	658.2	767.5
32.5°	815.0	812.8	779.8	729.4	679.9	672.6	645.4	635.7	648.1	701.5	827.2
35°	893.8	891.8	864.4	812.6	752.1	743.1	715.4	704.4	710.8	757.0	905.3
37.5°	965.0	964.0	940.5	899.7	837.3	826.3	795.2	791.5	790.3	830.2	1000.0
40°	1031.1	1028.6	1004.1	982.6	936.4	926.3	898.9	895.7	886.5	920.2	1107.1
42.5°	1104.2	1097.8	1062.4	1052.3	1039.9	1031.5	1015.2	1015.6	995.1	1021.8	1220.7
45°	1163.9	1160.2	1123.8	1117.9	1131.4	1127.9	1142.1	1145.8	1105.9	1128.2	1338.6
47.5°	1228.0	1224.6	1193.8	1189.6	1226.1	1227.0	1277.2	1278.4	1214.1	1238.8	1456.8
50°	1307.0	1302.2	1271.6	1276.7	1317.6	1321.2	1413.0	1404.7	1313.7	1351.1	1574.0
52.5°	1359.2	1362.1	1355.5	1363.8	1419.6	1423.0	1546.6	1525.3	1412.3	1461.9	1689.0
55°	1397.6	1403.4	1424.0	1443.1	1527.3	1530.7	1672.6	1640.0	1494.0	1564.7	1797.1
57.5°	1447.0	1438.7	1477.1	1514.3	1629.5	1638.6	1795.2	1750.6	1566.4	1653.3	1871.3
60°	1518.0	1512.1	1541.9	1597.0	1744.0	1758.5	1924.8	1850.2	1619.5	1723.5	1885.7
62.5°	1661.8	1647.1	1651.8	1700.5	1888.4	1907.5	2071.2	1937.1	1645.9	1750.9	1808.4
65°	1876.9	1851.7	1828.2	1862.0	2091.7	2110.6	2236.3	2005.3	1636.1	1697.8	1603.1
67.5°	2147.7	2122.8	2093.9	2125.7	2391.2	2406.1	2440.1	2043.8	1559.1	1493.2	1240.2
70°	2371.1	2361.8	2396.3	2527.2	2869.5	2870.0	2701.4	2011.9	1347.9	1058.7	717.6
72.5°	2341.5	2335.9	2517.7	2922.4	3472.4	3459.4	2948.8	1771.2	908.0	477.6	268.9
75°	1920.9	1957.4	2239.0	2915.3	3688.9	3687.2	2797.4	1126.0	375.6	197.9	139.0
77.5°	1030.1	1087.8	1453.6	2152.4	2879.8	2923.1	1966.7	393.9	161.2	126.7	96.2
80°	335.9	386.3	579.4	1095.9	1871.3	1863.2	842.9	154.6	110.3	89.8	66.6
82.5°	142.6	148.5	258.9	517.5	960.3	945.4	268.4	88.8	77.6	61.4	41.1
85°	55.8	62.4	114.3	239.3	415.9	406.9	96.9	44.0	49.7	40.1	24.5
87.5°	18.4	22.3	40.9	82.0	129.4	124.8	23.7	15.2	21.5	18.4	8.8
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°	603.1	603.1	603.1	603.1	603.1	603.1	603.1	603.1	603.1	603.1	603.1
2.5°	608.3	612.2	616.8	623.7	629.5	634.4	639.6	642.8	644.0	647.7	647.4
5°	612.7	621.2	632.7	644.0	655.0	661.6	667.5	670.4	673.1	675.1	675.5
7.5°	620.0	631.0	649.1	663.8	673.1	678.5	682.4	681.4	682.4	682.9	683.6
10°	626.4	641.8	663.3	677.3	684.4	684.6	683.6	680.2	678.5	678.7	679.2
12.5°	633.9	651.1	674.3	686.1	688.0	682.6	678.5	672.6	670.4	669.4	668.9
15°	644.2	663.8	686.3	690.7	685.8	679.0	671.9	662.3	657.4	653.5	654.7
17.5°	656.7	678.2	695.6	692.4	681.9	670.6	659.2	644.7	634.7	630.5	630.8
20°	674.1	693.4	702.7	688.8	672.9	655.7	636.2	618.5	609.2	605.1	604.6
22.5°	695.1	713.7	709.6	682.4	659.9	632.5	608.0	595.0	590.4	587.5	588.0
25°	720.3	736.2	714.4	673.1	638.6	601.7	582.8	578.7	576.5	574.2	574.2
27.5°	753.1	761.7	718.1	659.4	605.3	568.9	562.0	562.7	562.0	558.3	559.1
30°	796.4	794.7	721.5	637.1	567.2	539.3	539.7	542.9	543.4	541.0	542.2
32.5°	853.4	836.0	723.3	608.3	530.7	513.3	513.8	517.2	519.7	515.5	517.5
35°	922.4	884.2	720.6	572.0	502.6	488.6	484.9	485.9	486.7	482.7	485.4
37.5°	1002.9	938.3	708.6	531.9	479.3	464.4	456.6	450.0	446.0	442.4	444.8
40°	1091.2	997.3	686.6	492.8	453.4	438.7	427.0	414.5	401.3	396.4	398.6
42.5°	1183.7	1058.0	659.9	455.3	423.5	411.5	399.1	381.0	361.1	351.1	352.3
45°	1279.6	1120.1	633.7	418.4	392.9	387.8	373.4	351.6	330.1	317.3	316.4
47.5°	1373.6	1178.8	595.3	381.2	364.3	369.9	358.7	338.6	314.7	294.6	292.4
50°	1463.4	1233.9	532.4	343.5	341.1	364.6	353.8	324.9	297.5	271.8	269.6
52.5°	1552.5	1278.4	451.9	309.3	328.6	363.1	347.4	315.6	282.1	255.2	252.3
55°	1628.1	1301.4	374.4	279.9	310.5	350.6	339.9	304.6	260.3	231.7	229.3
57.5°	1671.1	1282.8	309.8	251.0	285.5	330.1	326.9	281.1	234.4	212.4	209.4
60°	1652.5	1207.5	256.9	225.8	261.8	307.8	304.4	257.9	214.6	193.8	190.8
62.5°	1550.0	1063.8	215.1	203.8	240.3	285.0	281.9	240.0	199.4	179.3	176.2
65°	1343.5	865.4	182.5	185.5	218.5	257.6	262.3	225.1	187.4	167.8	164.7
67.5°	1024.7	626.9	157.1	169.6	197.2	230.7	244.2	214.3	177.4	158.8	155.9
70°	584.0	356.0	135.5	154.1	178.4	205.8	230.2	205.8	166.6	151.2	149.3
72.5°	221.4	163.4	117.2	138.7	160.3	184.7	214.8	192.3	154.1	142.6	140.7
75°	118.2	99.6	98.6	120.6	139.5	164.2	195.5	179.1	144.8	150.7	155.6
77.5°	80.5	70.5	82.5	103.3	116.7	141.4	174.9	159.0	125.5	125.0	115.2
80°	55.8	49.9	67.0	83.2	90.3	118.9	152.7	136.5	102.3	95.4	91.3
82.5°	33.5	32.5	50.2	62.1	63.9	91.8	126.5	114.5	83.7	72.9	73.4
85°	18.4	19.3	32.1	36.5	37.2	64.1	99.1	88.6	64.3	54.1	54.6
87.5°	5.1	6.6	11.7	14.4	17.9	33.3	59.0	52.6	32.3	22.5	22.5
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)