

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: P881603

Luminaire Tested: **NAV-SB1A-830-U-SL4-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881603
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1A-830-U-SL4-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2742 lumens
Efficiency: N/A
Efficacy: 88.7 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

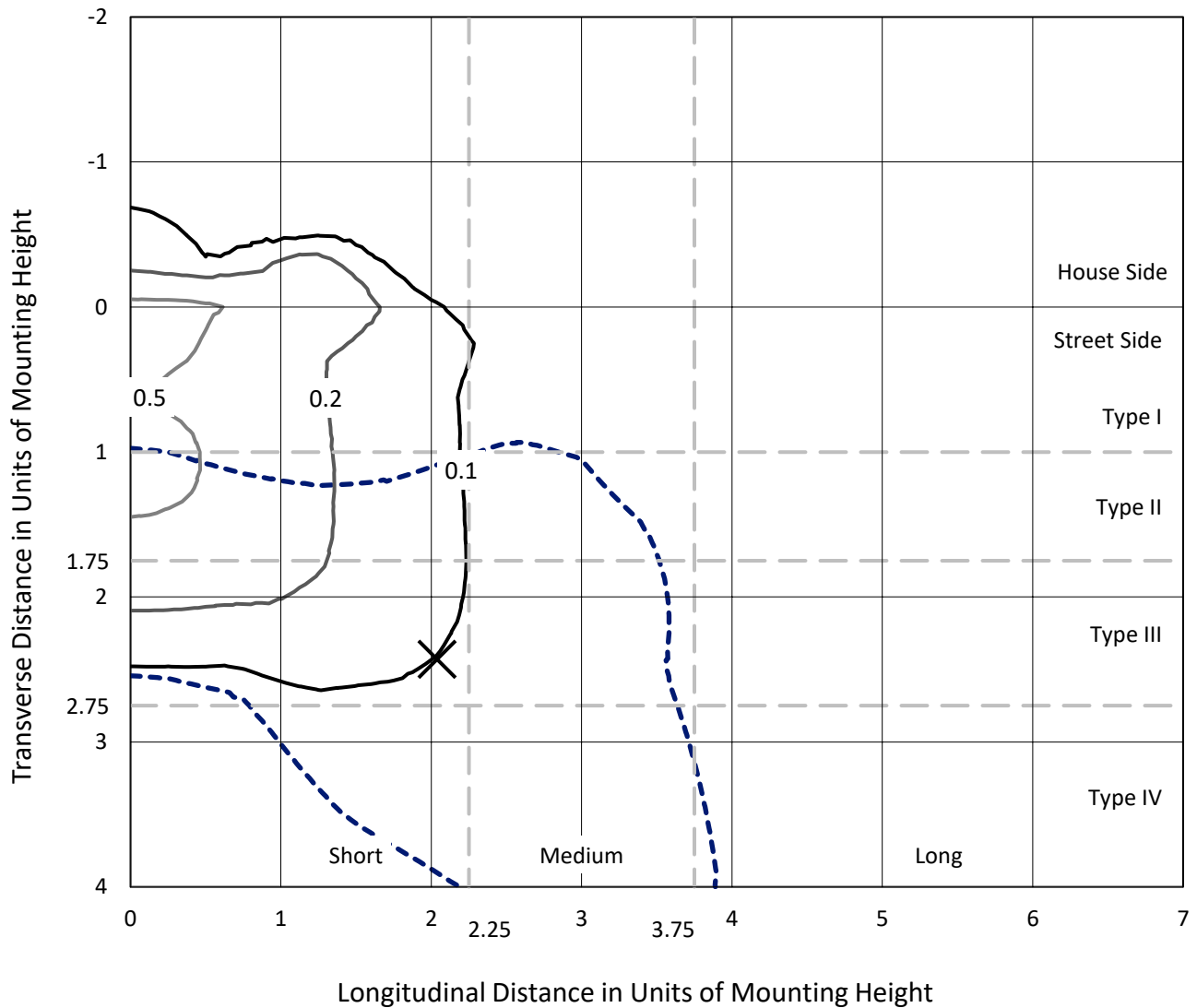
Input Watts (W): 30.9
Input Voltage (V): 120.0
Input Current (Ain): 0.263
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 6.356
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

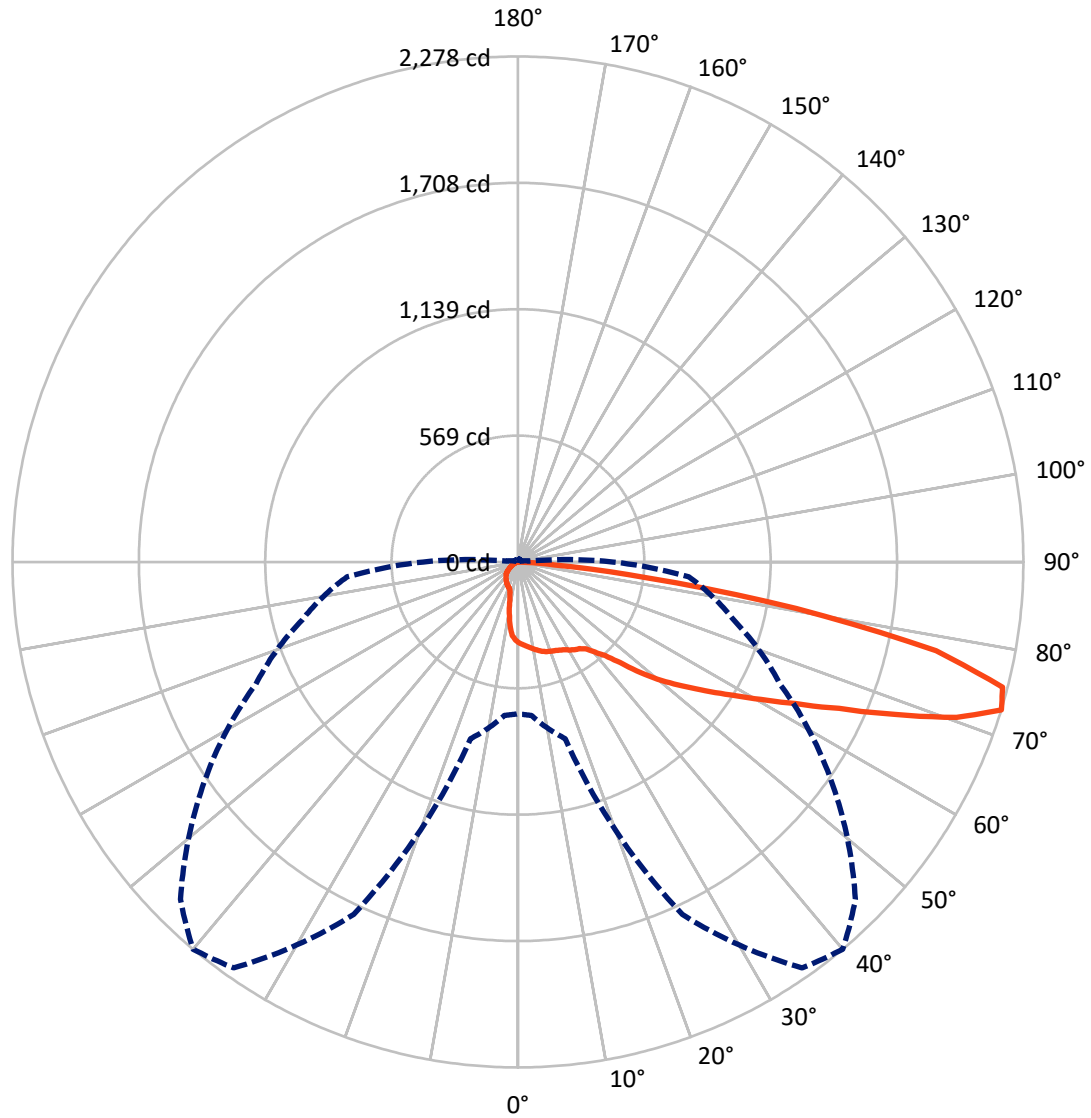
✕ Max cd
 - - - 1/2 Max cd



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



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	354.1	0.0	354.1
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	2387.9	0.0	2387.9
	% Fixture	87.1	0.0	87.1
Total	Lumens	2742.0	0.0	2742.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.2	1.2
10°-20°	90.0	3.3
20°-30°	145.7	5.3
30°-40°	215.1	7.8
40°-50°	362.0	13.2
50°-60°	562.1	20.5
60°-70°	703.4	25.7
70°-80°	575.9	21.0
80°-90°	54.6	2.0
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°	2742.0	100.0
0°-180°	2742.0	100.0

Coefficient of Utilization



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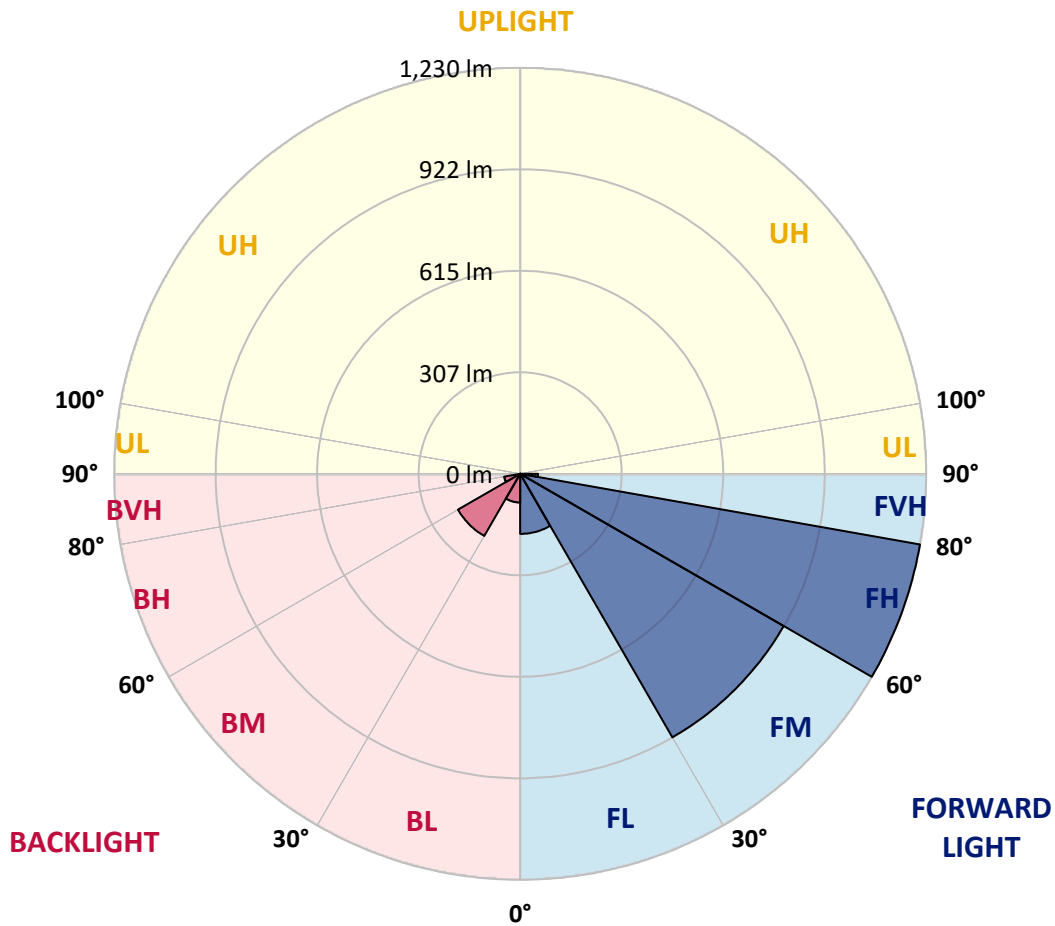
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	182.0	6.6			
FM (30°-60°)	921.8	33.6			
FH (60°-80°)	1229.9	44.9			G1/1800
FVH (80°-90°)	54.2	2.0			G1/100
BL (0°-30°)	86.9	3.2	B0/110		
BM (30°-60°)	217.4	7.9	B0/220		
BH (60°-80°)	49.3	1.8	B0/110		G0/110
BVH (80°-90°)	0.4	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°	35°	40°	45°	55°	65°	75°	85°
0°	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1
2.5°	374.0	375.5	374.6	373.0	372.6	371.7	370.7	370.3	368.8	367.6	366.2
5°	384.5	386.0	385.0	382.7	381.6	380.6	379.2	377.9	375.0	372.4	369.1
7.5°	396.1	397.3	396.1	392.8	391.1	389.9	387.8	386.0	382.7	378.8	374.6
10°	408.9	409.9	408.1	403.7	401.1	399.2	397.3	395.3	392.2	387.8	382.9
12.5°	420.9	422.1	419.2	414.1	411.0	409.1	407.1	405.4	402.3	398.2	393.0
15°	431.8	433.7	428.7	423.2	419.6	418.2	416.1	415.1	413.0	410.1	405.4
17.5°	440.1	441.3	436.2	429.6	425.6	424.6	423.2	423.8	423.4	421.9	418.8
20°	447.1	447.9	441.1	433.1	428.7	428.9	428.5	430.6	431.4	431.4	431.2
22.5°	455.8	456.0	447.3	437.2	432.0	433.5	434.1	436.4	438.0	439.7	443.4
25°	467.1	466.7	456.4	442.6	438.0	440.1	441.5	442.4	444.2	446.9	455.4
27.5°	484.1	482.8	469.6	451.2	445.9	447.7	450.4	450.0	449.2	451.2	465.5
30°	505.6	503.9	486.4	463.4	458.5	460.1	461.0	457.2	451.2	453.1	474.4
32.5°	539.6	536.7	512.4	477.1	469.4	471.3	470.2	462.6	453.7	455.6	483.3
35°	598.9	591.9	557.4	505.6	481.8	479.7	477.3	469.8	458.9	457.0	490.7
37.5°	724.9	712.5	653.6	561.1	509.9	496.5	488.8	481.4	464.5	457.0	499.2
40°	867.0	854.4	786.4	654.1	556.6	533.9	515.7	495.0	470.2	459.7	512.4
42.5°	1015.3	1001.4	931.6	769.3	623.3	576.6	542.7	506.0	479.7	468.0	529.9
45°	1180.9	1163.5	1072.3	889.5	720.1	647.6	586.3	528.5	496.3	482.6	553.9
47.5°	1355.6	1333.1	1212.5	1006.2	824.4	746.0	666.0	568.8	520.6	504.5	586.3
50°	1510.5	1488.2	1357.3	1128.2	921.9	839.5	756.9	624.5	557.2	535.5	629.9
52.5°	1621.8	1604.9	1489.0	1254.2	1023.3	927.3	839.3	689.4	603.5	575.2	681.3
55°	1696.4	1680.9	1582.4	1373.6	1141.2	1023.9	920.5	759.8	659.2	622.7	738.1
57.5°	1741.6	1732.7	1649.9	1480.1	1258.1	1129.7	1013.4	837.2	724.9	678.6	801.5
60°	1757.7	1750.5	1691.8	1581.7	1399.4	1256.7	1122.6	924.6	804.6	742.2	866.6
62.5°	1714.7	1716.2	1722.0	1702.1	1548.3	1405.4	1253.6	1029.5	893.0	814.3	927.7
65°	1512.6	1524.5	1634.4	1835.6	1745.5	1591.7	1420.2	1157.5	994.2	896.3	976.2
67.5°	1252.3	1269.7	1406.4	1913.6	1955.7	1833.5	1652.4	1320.7	1114.8	979.7	994.6
70°	958.7	977.3	1142.9	1897.3	2152.6	2097.8	1939.4	1528.3	1239.7	1037.6	947.7
72.5°	684.2	693.7	824.2	1752.1	2233.3	2277.9	2150.9	1724.9	1303.6	1005.5	773.0
75°	480.8	479.1	565.7	1410.9	2107.5	2256.0	2076.8	1618.5	1179.6	798.8	476.6
77.5°	209.4	209.8	282.5	856.9	1682.1	1926.8	1726.3	1013.8	822.4	423.4	201.2
80°	54.3	56.0	103.7	341.2	1012.8	1271.8	1052.8	445.7	380.0	103.3	38.4
82.5°	19.2	20.4	47.7	107.2	373.6	583.2	468.8	142.5	99.1	29.5	10.3
85°	5.6	6.6	25.6	32.8	77.2	164.8	113.8	27.7	24.4	15.3	2.7
87.5°	0.0	0.8	5.2	4.5	4.5	3.1	5.8	3.1	3.9	1.9	0.8
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°	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1	363.1
2.5°	364.9	363.5	360.4	357.1	354.0	351.1	350.3	347.2	345.7	345.9	345.7
5°	366.8	364.1	358.1	350.9	343.4	335.0	328.0	318.0	309.6	308.5	307.9
7.5°	371.7	367.4	357.7	343.7	325.1	301.7	280.0	258.6	246.4	239.8	239.4
10°	379.4	373.6	358.7	331.9	292.4	250.7	217.9	190.8	177.0	170.6	169.3
12.5°	388.5	382.1	360.4	311.8	250.3	195.6	160.1	143.5	140.6	140.2	140.0
15°	401.3	394.2	362.2	284.8	204.7	148.9	132.6	132.8	135.1	136.3	136.1
17.5°	415.5	408.5	359.6	251.7	159.6	127.2	126.8	128.7	132.0	133.2	133.0
20°	430.0	423.4	350.1	212.9	129.1	121.2	122.9	124.9	128.2	129.9	129.9
22.5°	444.8	439.1	335.0	171.6	116.5	116.9	119.0	121.0	124.7	126.6	126.6
25°	460.7	455.8	314.9	137.5	111.1	112.3	115.0	117.5	121.4	123.7	123.7
27.5°	476.9	473.1	292.2	114.8	106.2	107.6	110.7	114.0	117.9	120.6	120.8
30°	494.4	492.3	274.1	106.4	101.4	102.6	106.2	109.9	114.2	117.5	117.9
32.5°	512.4	512.0	265.2	112.6	97.1	97.9	101.0	104.7	110.1	114.2	114.6
35°	530.1	531.0	260.0	130.1	95.6	93.3	95.4	98.7	105.1	110.3	111.1
37.5°	552.9	554.9	259.8	149.1	99.1	88.8	90.2	92.5	98.1	104.1	105.1
40°	586.7	597.7	273.0	165.4	105.3	84.7	85.1	85.5	88.4	93.3	95.0
42.5°	631.7	663.8	320.7	176.6	107.8	81.0	79.5	77.2	76.8	79.5	81.0
45°	687.7	743.7	404.6	182.8	105.3	76.8	72.9	66.9	64.6	66.5	66.5
47.5°	753.6	831.2	503.9	184.2	101.2	71.7	64.6	56.8	54.9	55.6	55.3
50°	817.8	896.9	591.3	172.2	94.4	65.1	55.6	48.9	47.7	47.9	47.9
52.5°	874.6	919.4	616.1	143.9	85.3	57.0	47.7	43.2	42.3	42.3	42.1
55°	912.2	895.1	549.3	110.1	73.9	48.7	40.9	38.6	38.2	38.0	37.6
57.5°	920.0	815.8	414.9	79.5	57.8	41.1	36.3	35.1	34.3	33.5	33.0
60°	892.0	683.6	264.1	55.6	43.4	35.1	32.2	31.4	29.7	28.1	27.5
62.5°	831.2	516.3	146.2	38.6	34.9	29.9	28.5	27.5	24.4	21.7	20.9
65°	749.7	343.2	64.6	30.2	28.5	25.2	24.4	22.9	19.2	16.1	15.5
67.5°	667.7	197.6	29.1	24.2	22.9	20.7	20.0	19.0	16.3	13.4	13.0
70°	574.1	100.2	20.0	19.2	17.8	15.7	16.3	16.1	13.4	10.9	10.5
72.5°	427.5	49.8	15.1	14.5	12.8	11.2	13.4	13.2	10.5	8.3	7.8
75°	242.0	24.6	10.9	10.1	7.6	8.3	10.7	10.1	7.2	5.4	5.0
77.5°	96.0	12.6	7.2	6.2	4.5	5.6	7.8	6.8	3.7	2.3	2.1
80°	22.1	6.2	3.7	2.7	2.1	3.3	4.1	2.5	1.0	0.2	0.0
82.5°	6.2	2.7	1.2	1.0	1.0	1.2	1.0	0.4	0.0	0.0	0.0
85°	2.1	1.2	0.4	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0
87.5°	0.8	0.4	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)