

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: P196429

Luminaire Tested: **NAV-AF-01-D-UNV-5NQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196429
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)
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-5NQ-7030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6073.7 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B2 - U0 - G1

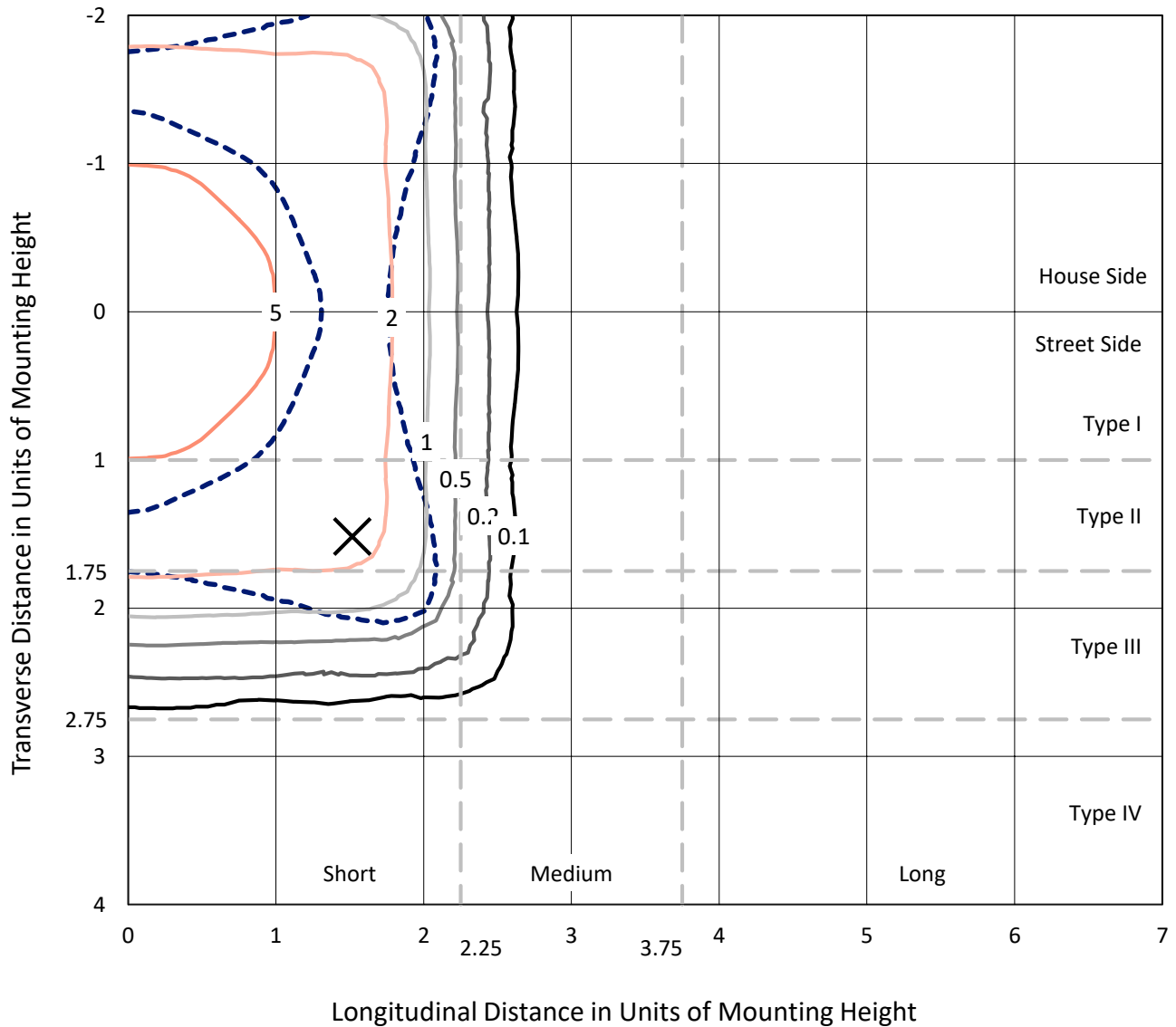
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

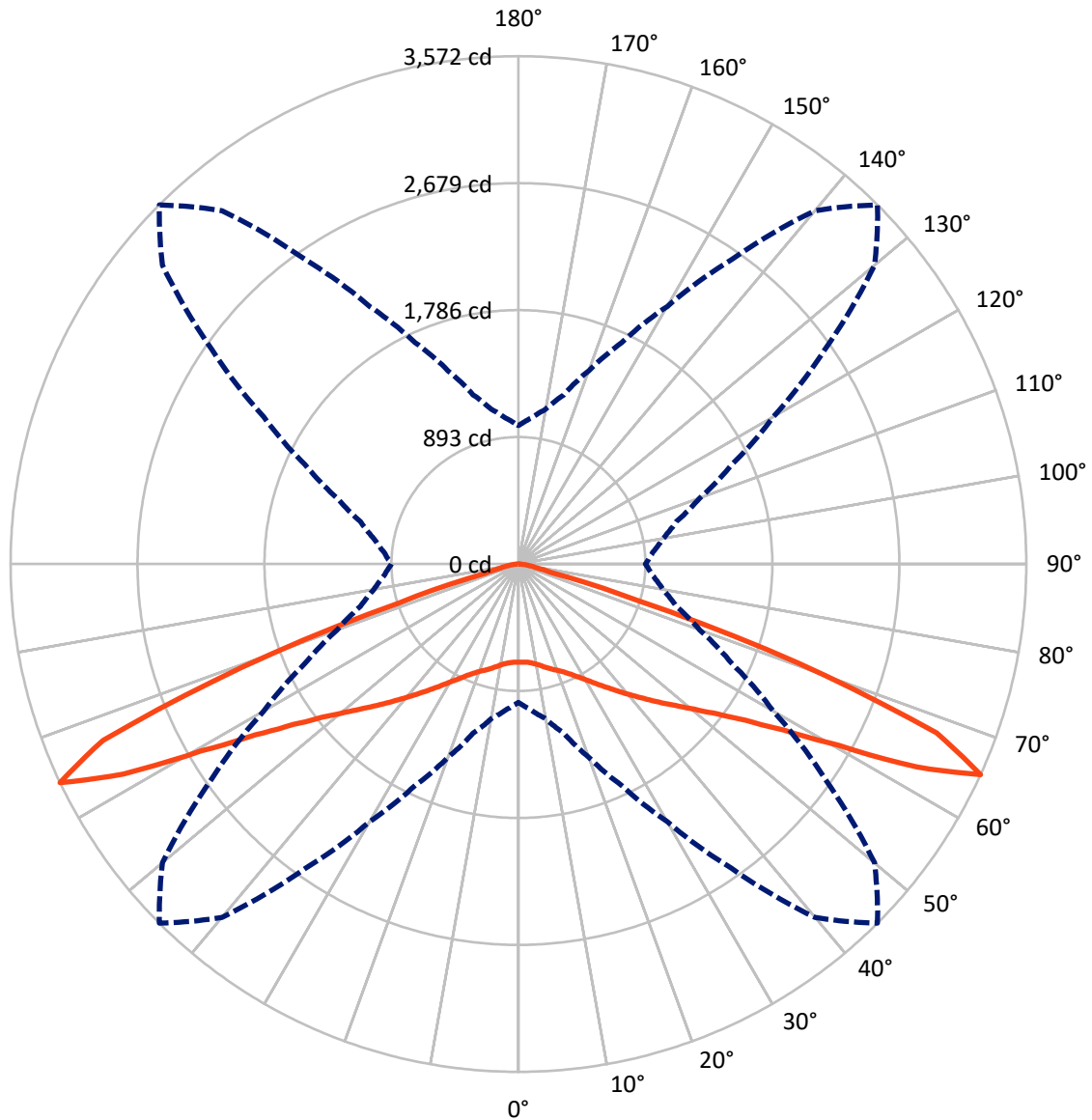
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3036.9	0.0	3036.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3036.9	0.0	3036.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	6073.7	0.0	6073.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.3	1.1
10°-20°	215.6	3.6
20°-30°	402.2	6.6
30°-40°	678.3	11.2
40°-50°	1101.7	18.1
50°-60°	1726.2	28.4
60°-70°	1629.4	26.8
70°-80°	219.6	3.6
80°-90°	33.4	0.6
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°	6073.7	100.0
0°-180°	6073.7	100.0



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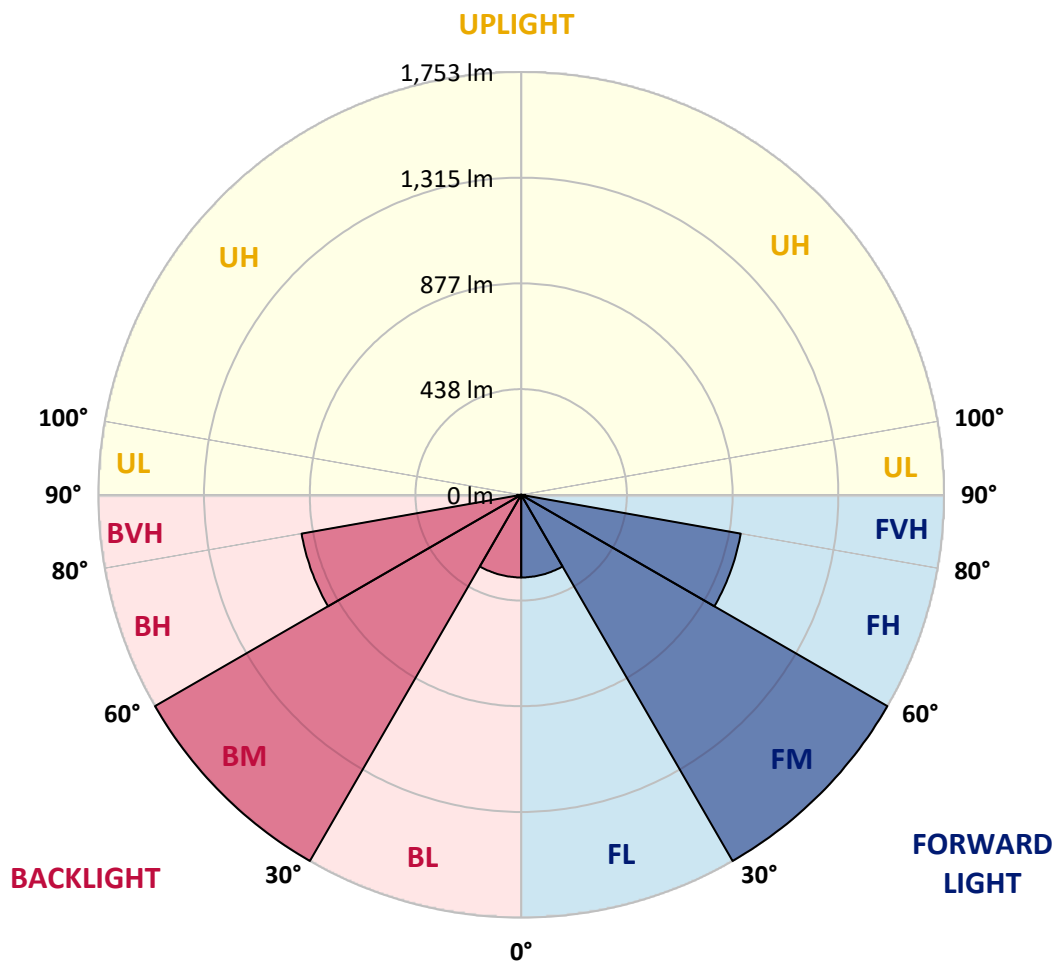
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	342.6	5.6			
FM	(30°-60°)	1753.1	28.9			
FH	(60°-80°)	924.5	15.2			G1/1800
FVH	(80°-90°)	16.7	0.3			G1/100
BL	(0°-30°)	342.6	5.6	B1/500		
BM	(30°-60°)	1753.1	28.9	B2/2500		
BH	(60°-80°)	924.5	15.2	B2/1000		G1/1800
BVH	(80°-90°)	16.7	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8
2.5°	696.5	696.5	697.7	697.3	695.8	694.7	693.6	692.0	691.3	690.5	690.1
5°	700.4	700.4	701.5	701.1	700.0	698.5	697.7	696.5	695.4	694.7	695.0
7.5°	709.7	710.1	710.5	710.1	709.1	707.9	706.4	706.1	704.5	703.4	704.0
10°	724.2	724.2	724.5	724.9	724.2	721.5	721.5	720.8	719.3	717.8	718.2
12.5°	740.0	740.0	740.4	740.4	740.4	738.9	739.3	738.9	737.1	736.3	737.1
15°	755.5	756.0	756.0	756.7	756.7	757.0	758.6	758.6	757.8	757.5	757.5
17.5°	773.8	774.5	774.8	776.0	776.4	777.2	778.7	779.0	779.4	778.3	778.7
20°	797.9	798.3	799.4	799.9	801.3	801.3	802.1	801.8	801.0	799.4	799.4
22.5°	825.2	826.0	828.1	828.1	830.2	829.0	829.4	828.1	826.3	825.6	824.8
25°	860.8	861.9	863.8	863.0	863.8	861.9	861.9	861.9	860.8	859.7	859.3
27.5°	905.8	903.9	905.8	904.2	903.9	902.4	902.8	902.1	900.9	900.6	898.9
30°	952.7	950.4	951.5	951.9	951.2	950.8	949.3	948.2	946.3	946.6	945.5
32.5°	1006.4	1004.2	1005.3	1005.6	1004.9	1005.6	1005.3	1002.7	1000.4	1001.9	1001.9
35°	1070.4	1068.9	1071.9	1073.0	1070.7	1069.6	1068.1	1065.1	1061.7	1063.9	1064.3
37.5°	1147.2	1145.2	1147.5	1150.6	1146.4	1144.2	1138.1	1133.6	1131.3	1132.5	1133.9
40°	1227.0	1227.4	1233.9	1234.6	1230.0	1227.4	1221.3	1214.5	1208.1	1208.1	1209.9
42.5°	1311.0	1312.1	1319.8	1322.4	1320.8	1315.9	1307.7	1299.3	1290.9	1292.4	1294.7
45°	1405.9	1404.4	1412.4	1418.8	1417.7	1416.2	1408.3	1393.0	1385.5	1385.2	1388.9
47.5°	1505.8	1508.9	1517.2	1528.2	1527.8	1524.0	1513.8	1499.8	1485.8	1486.9	1491.5
50°	1622.4	1626.6	1640.5	1651.6	1653.1	1651.9	1639.8	1623.5	1603.8	1605.0	1611.0
52.5°	1726.9	1732.9	1749.1	1771.8	1785.9	1792.3	1784.3	1769.2	1749.1	1750.3	1756.7
55°	1821.5	1830.8	1855.1	1886.2	1914.1	1940.2	1951.9	1951.6	1936.8	1940.2	1948.5
57.5°	1880.8	1894.0	1930.7	1980.7	2036.3	2088.9	2134.3	2177.1	2186.5	2204.3	2204.3
60°	1801.0	1832.0	1880.8	1966.3	2075.7	2193.7	2321.5	2446.1	2526.3	2589.5	2555.5
62.5°	1504.0	1549.8	1618.2	1731.0	1901.2	2112.0	2368.8	2658.3	2960.3	3144.9	3009.4
65°	973.2	1030.7	1105.1	1231.9	1446.5	1717.8	2091.9	2612.2	3244.0	3571.6	3269.0
67.5°	385.5	424.5	470.0	560.0	746.1	1012.5	1432.5	2074.2	2864.6	3173.7	2834.3
70°	184.2	190.6	199.4	218.7	265.3	358.0	575.5	1021.9	1756.7	2082.5	1714.8
72.5°	133.2	134.3	138.4	144.9	158.5	177.4	215.7	312.5	605.8	880.8	606.5
75°	101.1	102.4	104.8	108.1	115.4	124.4	138.9	166.5	207.4	239.2	206.9
77.5°	76.8	78.3	80.2	83.6	87.4	93.9	99.1	110.2	127.5	134.3	133.6
80°	56.0	58.7	61.6	64.7	67.3	70.4	70.8	76.1	85.9	92.4	90.4
82.5°	35.6	37.8	45.8	49.1	49.6	50.4	49.9	50.4	55.6	60.2	58.7
85°	22.7	24.2	28.4	32.1	31.3	32.9	32.9	32.1	29.9	25.6	30.6
87.5°	11.4	11.7	13.6	17.1	16.3	14.4	13.9	13.9	10.2	8.7	9.5
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°	690.8	690.8	690.8	690.8	690.8	690.8	690.8	690.8
2.5°	689.0	689.8	688.7	688.7	688.3	689.0	687.9	687.9
5°	694.3	695.4	695.0	695.0	695.8	696.5	696.2	695.8
7.5°	703.7	704.5	705.3	705.6	706.4	706.1	706.8	706.4
10°	718.2	717.4	718.5	717.4	717.8	717.0	717.4	717.4
12.5°	736.3	735.1	734.4	733.6	733.6	732.1	732.1	732.5
15°	757.0	755.2	753.7	752.9	752.1	752.1	751.0	751.8
17.5°	777.5	775.6	773.0	773.0	771.8	771.1	770.4	772.3
20°	799.1	797.1	795.7	795.3	793.0	792.2	792.6	795.0
22.5°	824.1	822.9	822.9	822.1	820.6	819.6	819.6	822.1
25°	857.6	855.5	855.8	856.3	855.5	855.5	854.7	856.6
27.5°	898.9	897.1	898.2	898.9	898.2	899.3	898.2	899.7
30°	947.4	946.3	947.4	948.6	946.6	946.6	945.8	947.1
32.5°	1005.3	1003.8	1004.5	1004.5	1001.9	999.6	996.6	998.8
35°	1068.9	1066.9	1068.4	1069.6	1066.6	1064.3	1059.9	1061.7
37.5°	1138.8	1139.6	1141.5	1146.4	1145.7	1141.9	1138.5	1140.0
40°	1217.1	1221.0	1229.2	1232.7	1231.9	1228.2	1223.6	1224.4
42.5°	1305.7	1310.7	1319.3	1325.0	1322.4	1317.0	1311.3	1313.7
45°	1402.3	1409.8	1421.1	1426.8	1423.4	1417.7	1409.8	1414.0
47.5°	1504.4	1519.5	1534.6	1542.2	1541.0	1533.1	1522.8	1524.0
50°	1626.6	1646.6	1665.8	1673.6	1667.9	1655.8	1641.3	1641.0
52.5°	1778.6	1800.3	1816.1	1814.2	1800.3	1781.3	1765.1	1764.3
55°	1968.7	1975.7	1973.5	1957.3	1932.7	1903.1	1882.3	1878.9
57.5°	2198.3	2174.0	2138.4	2089.2	2034.1	1978.0	1940.2	1926.2
60°	2479.0	2369.7	2242.5	2108.6	1986.4	1894.8	1836.8	1801.6
62.5°	2710.9	2394.2	2110.2	1877.4	1687.1	1574.0	1494.8	1446.0
65°	2631.5	2068.5	1656.8	1356.8	1149.1	1032.2	948.6	892.8
67.5°	2032.9	1382.1	961.8	666.7	505.5	428.0	373.7	338.6
70°	1025.0	530.1	321.2	226.6	193.7	180.1	171.0	165.7
72.5°	300.8	200.9	166.8	147.6	135.8	127.5	122.3	119.5
75°	166.5	135.8	119.9	108.9	101.4	95.7	92.4	90.0
77.5°	114.6	98.8	90.8	83.6	77.6	73.4	70.8	68.5
80°	80.2	72.2	68.9	65.1	60.5	57.2	53.3	51.8
82.5°	53.3	49.9	49.1	46.1	43.4	39.8	32.9	30.6
85°	31.3	31.0	31.0	29.9	28.0	24.6	19.6	19.6
87.5°	10.9	11.4	11.7	12.4	12.1	10.2	8.3	7.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)