

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: P195559

Luminaire Tested: **NAV-AF-01-D-UNV-RW-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195559
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
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-RW-7050-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5044 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B2 - U0 - G2

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

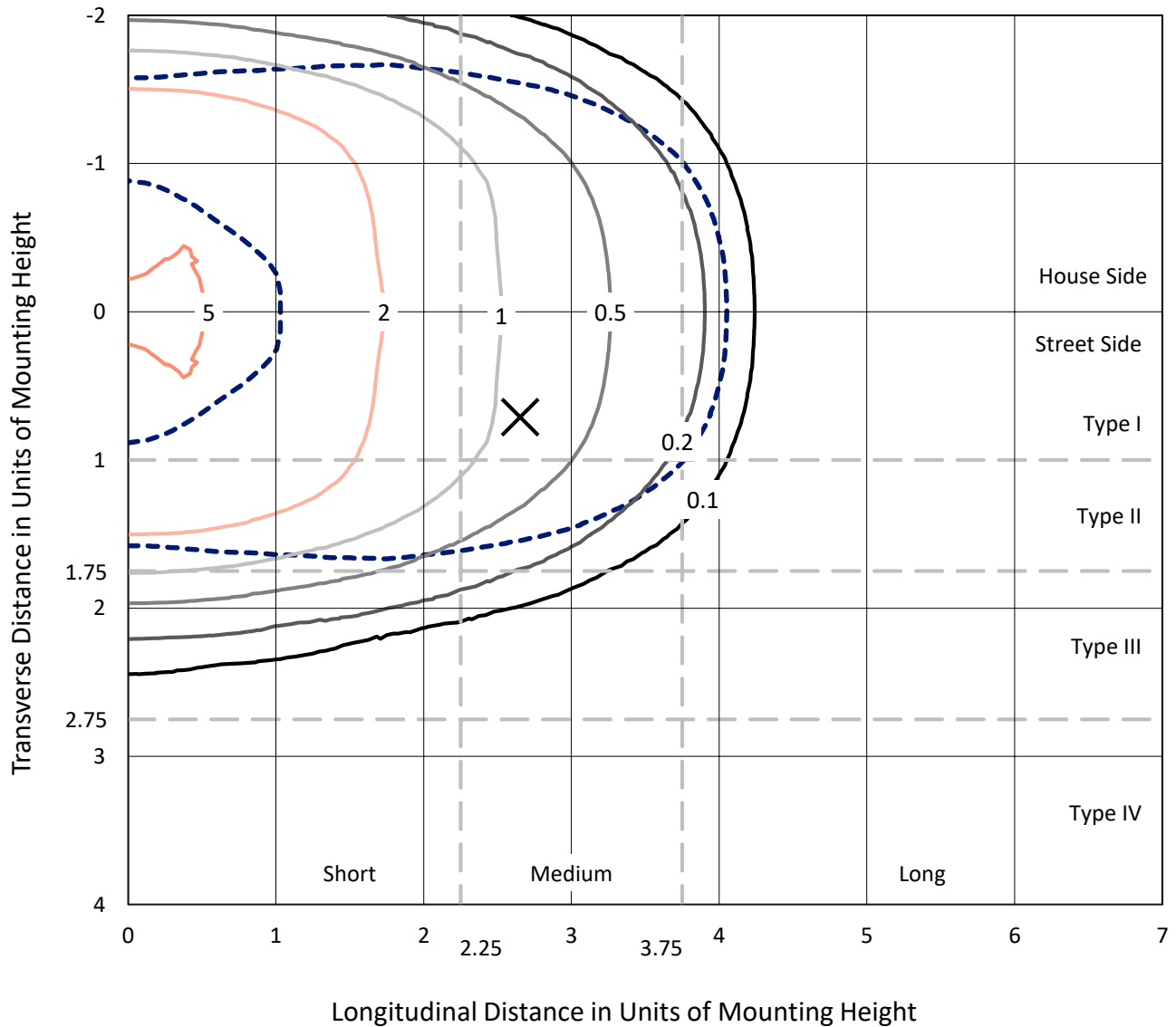


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

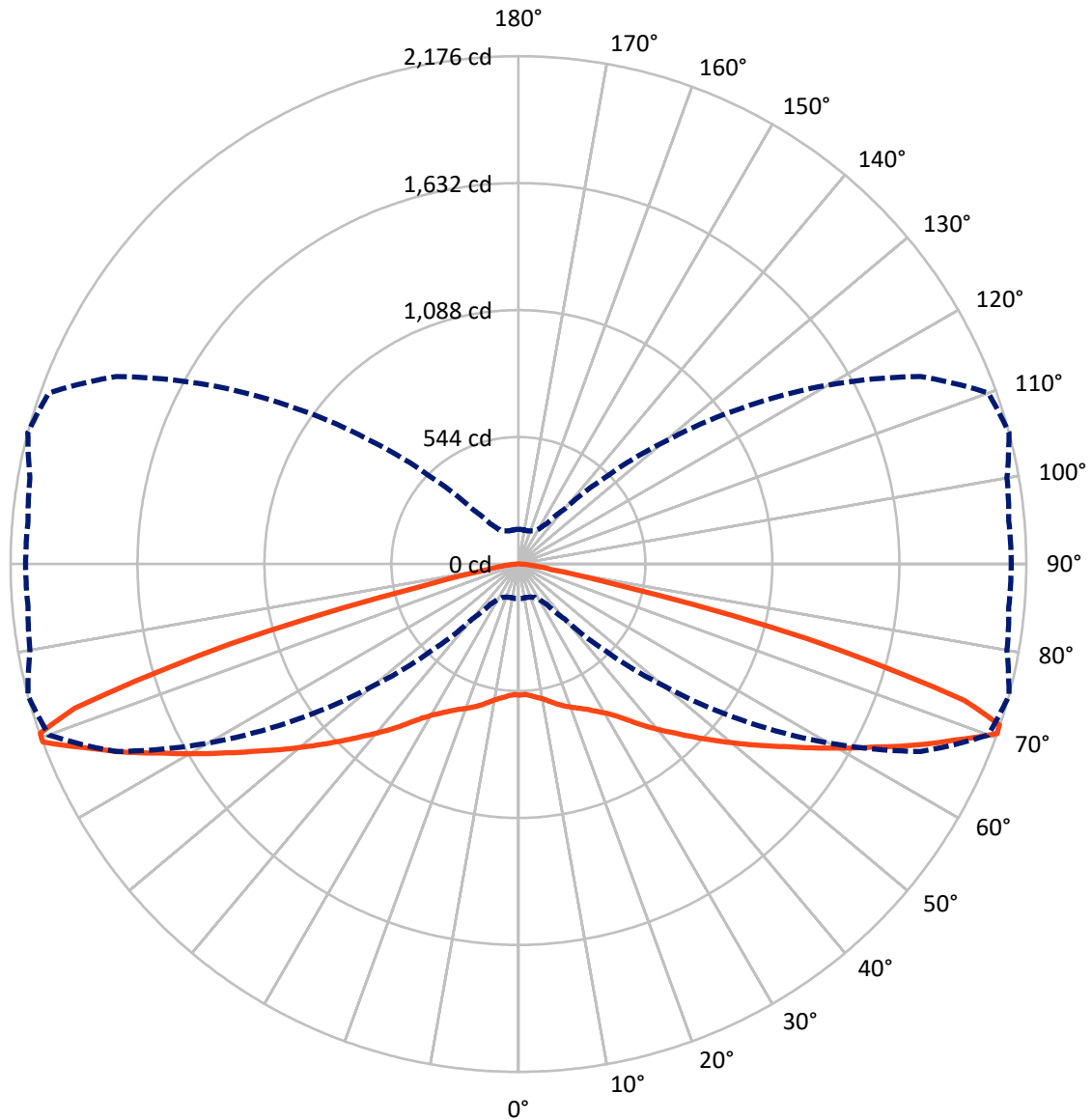


Based on 10 foot mounting height. Maximum calculated value = 5.7 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2522.0	0.0	2522.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2522.0	0.0	2522.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	5044.0	0.0	5044.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	1.1
10°-20°	167.1	3.3
20°-30°	313.8	6.2
30°-40°	552.8	11.0
40°-50°	916.2	18.2
50°-60°	1274.5	25.3
60°-70°	1203.2	23.9
70°-80°	513.9	10.2
80°-90°	48.6	1.0
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°	5044.0	100.0
0°-180°	5044.0	100.0



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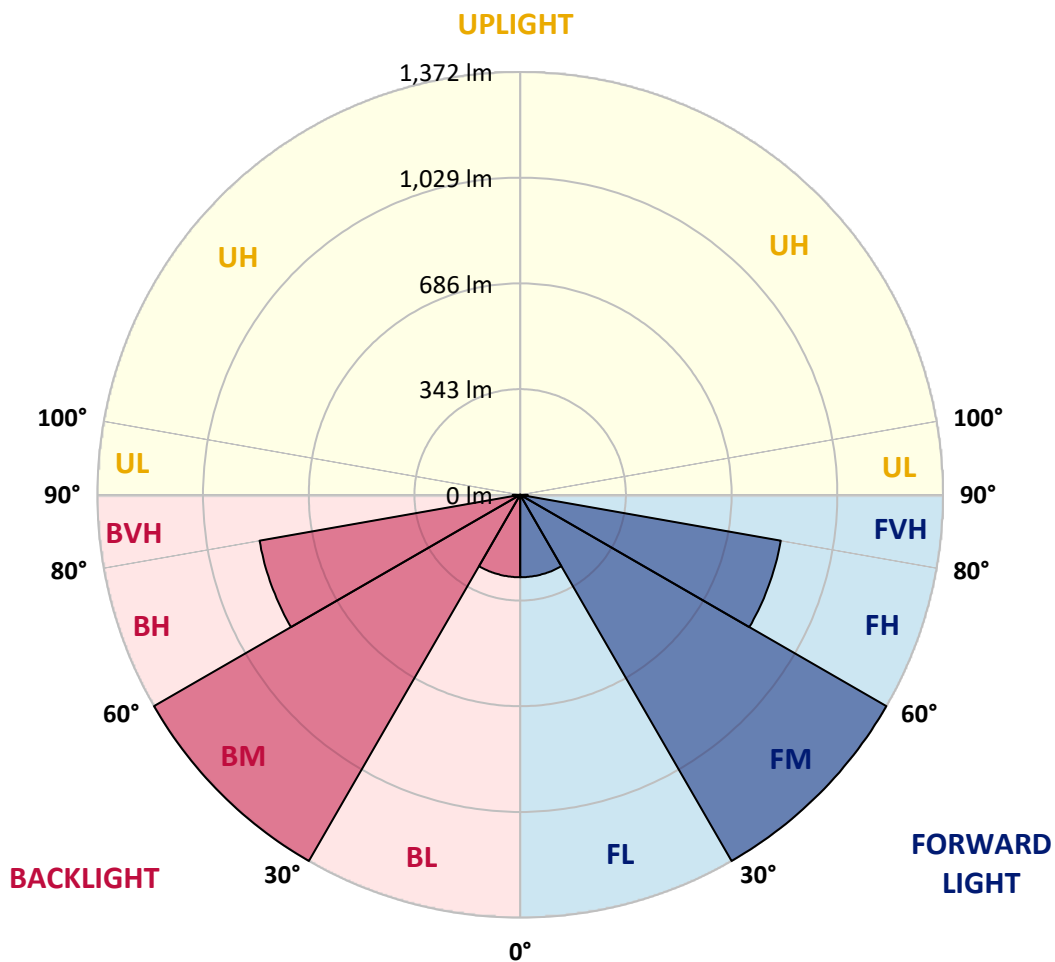
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	267.4	5.3			
FM	(30°-60°)	1371.8	27.2			
FH	(60°-80°)	858.5	17.0			G1/1800
FVH	(80°-90°)	24.3	0.5			G1/100
BL	(0°-30°)	267.4	5.3	B1/500		
BM	(30°-60°)	1371.8	27.2	B2/2500		
BH	(60°-80°)	858.5	17.0	B2/1000		G2/1000
BVH	(80°-90°)	24.3	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	561.7	561.7	561.7	561.7	561.7	561.7	561.7	561.7	561.7	561.7	561.7
2.5°	565.2	564.9	565.2	564.2	564.5	564.2	564.2	563.0	563.0	562.3	561.4
5°	558.9	559.5	559.5	559.5	560.4	560.4	561.7	562.0	563.0	563.9	564.5
7.5°	548.4	548.7	549.7	550.3	552.2	554.7	557.3	560.1	562.6	565.8	569.3
10°	539.6	540.2	541.8	543.4	546.8	550.0	554.4	558.9	563.3	568.7	574.0
12.5°	534.8	535.8	538.3	540.8	546.2	550.3	556.3	563.3	569.3	574.3	580.3
15°	535.5	535.8	539.3	542.7	550.3	556.0	564.5	572.8	580.0	585.7	592.7
17.5°	544.6	545.3	548.7	553.8	561.1	568.3	577.5	586.0	595.8	602.5	610.7
20°	562.6	563.6	567.4	572.8	580.7	588.3	597.7	606.6	616.7	624.6	632.8
22.5°	586.0	587.6	591.7	598.4	606.3	615.4	625.2	634.4	643.9	651.8	658.7
25°	617.3	619.2	623.7	630.3	638.2	648.0	658.1	667.6	677.4	683.4	689.1
27.5°	659.4	662.5	667.3	672.6	679.6	690.0	699.5	707.4	716.9	723.5	727.3
30°	716.0	720.4	724.2	729.9	734.9	746.0	753.6	759.9	767.2	771.0	771.9
32.5°	785.2	789.3	793.1	797.2	804.1	814.3	821.5	825.0	828.8	828.2	824.7
35°	863.3	866.4	868.6	875.9	887.3	893.9	899.3	900.6	901.2	894.5	887.9
37.5°	945.4	949.2	951.1	962.5	973.3	980.8	983.4	986.2	984.3	973.3	961.2
40°	1034.3	1038.4	1044.1	1053.9	1066.5	1073.8	1076.9	1076.6	1075.0	1062.1	1042.5
42.5°	1121.5	1126.6	1131.3	1148.4	1158.8	1171.1	1172.7	1172.4	1168.9	1154.1	1131.3
45°	1195.5	1201.5	1211.3	1230.2	1247.0	1261.8	1267.9	1270.1	1266.6	1250.8	1224.9
47.5°	1256.5	1260.6	1272.9	1296.0	1317.5	1339.3	1351.3	1359.8	1359.5	1348.1	1320.6
50°	1298.2	1302.9	1318.1	1344.0	1370.9	1396.5	1420.2	1439.5	1448.7	1440.4	1414.8
52.5°	1310.2	1316.2	1336.1	1367.1	1398.4	1432.9	1468.3	1502.4	1522.9	1528.0	1508.1
55°	1259.6	1266.3	1295.4	1338.3	1389.9	1440.8	1494.5	1543.2	1585.5	1605.1	1597.2
57.5°	1112.3	1117.1	1154.1	1209.7	1283.3	1372.8	1463.2	1552.3	1625.0	1675.9	1684.8
60°	879.7	885.7	926.2	984.9	1068.7	1181.9	1308.3	1454.3	1596.9	1713.5	1771.4
62.5°	593.6	597.7	636.6	690.3	782.0	891.1	1032.0	1217.0	1420.2	1628.5	1791.6
65°	311.7	311.7	337.9	375.5	448.5	546.2	690.7	880.3	1122.1	1382.3	1655.1
67.5°	180.8	180.5	186.5	195.0	218.1	257.6	337.3	476.7	705.5	1008.3	1318.7
70°	149.2	148.2	147.3	147.3	150.8	156.8	172.0	210.2	307.6	520.0	811.4
71°	142.6	141.9	139.4	138.4	140.0	143.2	149.8	167.5	218.4	354.7	606.0
72.5°	134.7	133.1	129.3	127.7	128.0	129.3	131.2	138.1	153.6	201.7	345.5
75°	122.6	118.9	114.1	111.9	110.9	110.6	110.6	112.5	116.0	121.7	141.6
77.5°	108.7	103.4	98.3	96.1	94.5	93.6	92.9	91.7	91.0	93.6	100.8
80°	92.0	86.3	82.2	80.9	80.0	78.1	75.5	73.0	71.4	72.7	77.1
82.5°	71.1	65.4	66.1	66.4	64.8	61.6	59.1	56.3	53.4	52.8	55.0
85°	56.6	53.7	51.8	55.9	52.5	48.7	45.2	40.5	33.8	27.8	30.3
87.5°	24.3	24.7	35.4	53.4	46.8	37.6	31.3	25.3	16.1	12.0	12.3
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°	561.7	561.7	561.7	561.7	561.7	561.7	561.7	561.7
2.5°	561.1	561.1	560.1	559.5	559.5	559.5	558.9	559.2
5°	564.9	565.5	566.1	565.8	566.8	567.7	567.4	567.1
7.5°	571.2	573.1	575.0	575.9	577.2	578.5	578.8	577.8
10°	577.5	581.3	584.1	586.7	588.3	589.5	590.5	590.1
12.5°	585.4	590.8	595.8	600.9	604.4	606.3	608.2	607.5
15°	598.4	604.4	610.7	617.3	622.7	625.5	628.4	627.8
17.5°	616.1	621.4	626.5	633.1	639.8	642.9	646.1	645.8
20°	638.2	642.3	645.1	648.9	655.3	658.7	661.6	660.6
22.5°	663.5	664.7	665.1	666.3	671.4	675.5	679.3	680.2
25°	691.0	690.0	688.1	687.2	690.7	695.1	699.8	701.1
27.5°	725.1	722.0	717.2	713.4	714.4	720.1	725.4	726.7
30°	768.1	760.8	750.7	743.5	742.2	748.2	753.9	755.8
32.5°	817.1	807.3	793.4	782.3	777.6	783.0	788.0	790.9
35°	875.3	864.5	847.8	833.5	826.0	829.4	838.3	841.4
37.5°	944.2	929.3	910.7	892.6	880.0	880.6	890.1	893.9
40°	1020.4	998.9	975.1	952.7	934.4	933.1	941.6	944.5
42.5°	1099.7	1072.2	1044.4	1015.0	992.2	988.1	999.2	999.5
45°	1185.0	1149.6	1115.2	1081.0	1057.3	1050.1	1060.8	1062.1
47.5°	1276.1	1231.8	1191.0	1154.1	1128.5	1117.1	1127.5	1129.4
50°	1370.9	1325.1	1277.7	1236.6	1206.5	1192.6	1204.9	1206.2
52.5°	1464.8	1421.5	1374.4	1327.3	1290.9	1275.1	1289.7	1294.1
55°	1559.3	1517.6	1473.3	1426.2	1380.4	1366.5	1382.3	1387.0
57.5°	1657.6	1617.5	1577.3	1529.9	1485.3	1464.1	1481.2	1487.9
60°	1766.0	1730.6	1692.7	1645.0	1601.0	1576.4	1590.9	1598.5
62.5°	1872.5	1865.3	1830.8	1781.2	1725.6	1700.9	1713.2	1718.6
65°	1881.4	1999.3	1997.7	1948.4	1870.6	1829.2	1832.7	1835.2
67.5°	1642.1	1912.7	2085.6	2101.1	2014.5	1949.7	1942.1	1943.7
70°	1162.6	1534.0	1901.0	2141.9	2176.0	2125.7	2109.3	2111.8
71°	931.5	1316.2	1720.2	2044.2	2173.5	2158.9	2149.8	2156.4
72.5°	594.6	969.8	1363.0	1750.5	1998.7	2069.8	2080.2	2084.3
75°	215.9	417.2	706.2	1011.8	1282.4	1468.6	1571.0	1579.2
77.5°	116.0	149.5	231.1	345.2	433.7	481.1	486.8	489.0
80°	85.3	98.9	113.2	129.3	139.4	141.3	137.8	130.5
82.5°	60.4	68.3	74.0	79.7	83.8	80.3	66.7	50.9
85°	35.1	38.6	41.7	44.6	45.2	42.7	28.1	23.1
87.5°	13.9	15.2	14.9	16.8	16.1	14.9	11.1	9.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)