

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: P143628

Luminaire Tested: **LDRL-5MQ-E02-E-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143628
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33697)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-5MQ-E02-E-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5245.7 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

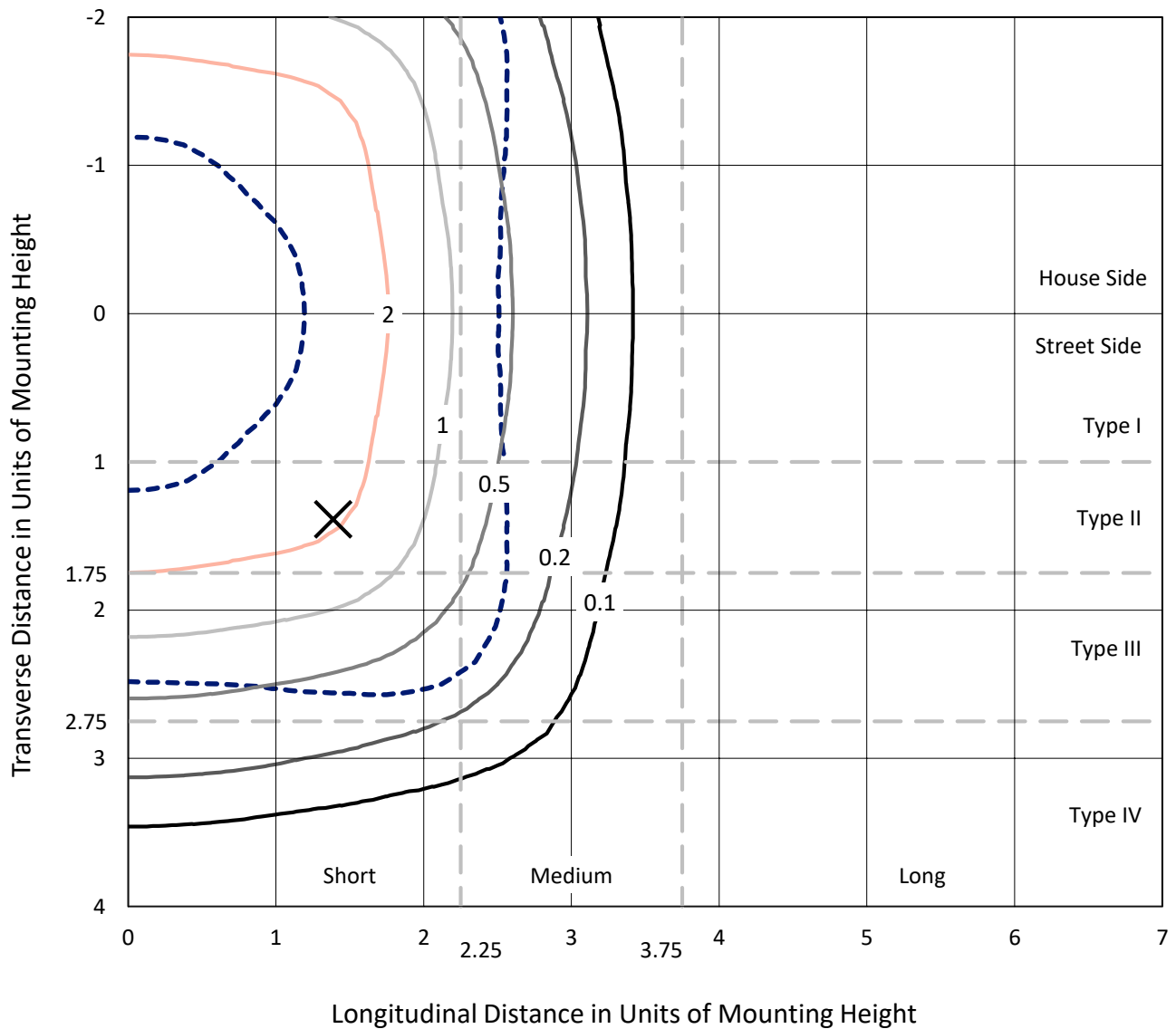
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

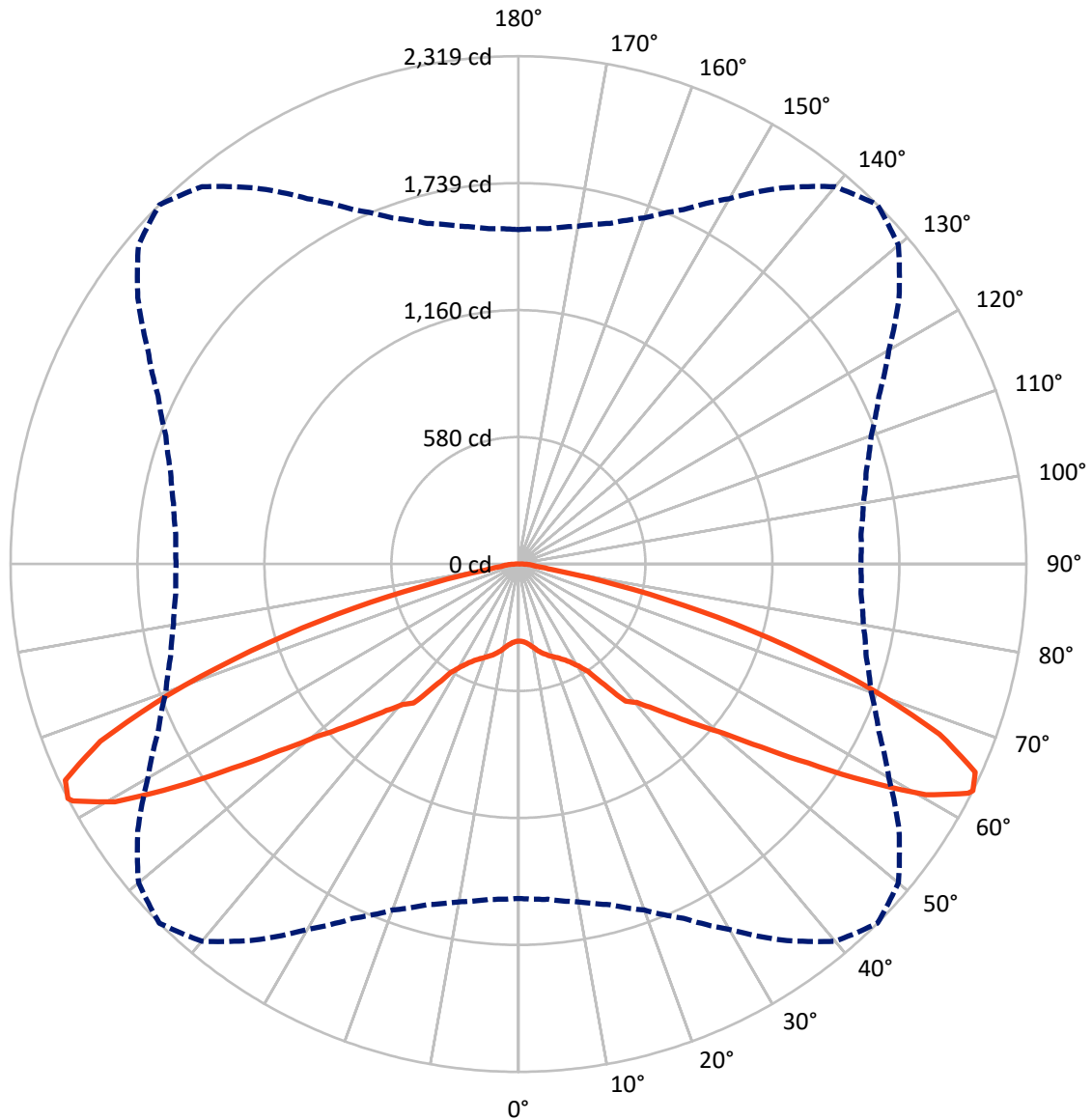
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.9 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2622.8	0.0	2622.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2622.8	0.0	2622.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	5245.7	0.0	5245.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.4	0.7
10°-20°	121.1	2.3
20°-30°	231.3	4.4
30°-40°	440.7	8.4
40°-50°	758.8	14.5
50°-60°	1356.0	25.8
60°-70°	1651.6	31.5
70°-80°	588.3	11.2
80°-90°	62.4	1.2
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°	5245.7	100.0
0°-180°	5245.7	100.0

Coefficient of Utilization



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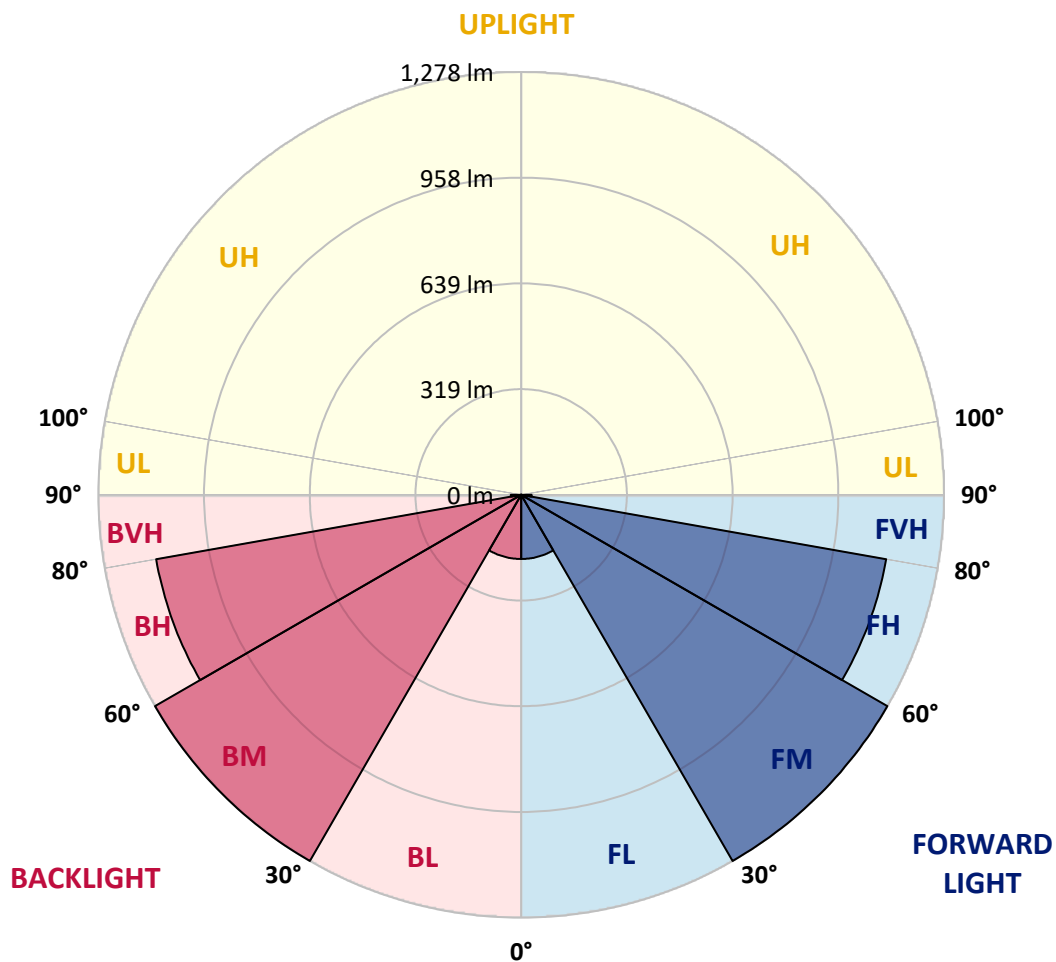
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	193.9	3.7			
FM (30°-60°)	1277.7	24.4			
FH (60°-80°)	1120.0	21.4			G1/1800
FVH (80°-90°)	31.2	0.6			G1/100
BL (0°-30°)	193.9	3.7	B1/500		
BM (30°-60°)	1277.7	24.4	B2/2500		
BH (60°-80°)	1120.0	21.4	B3/2500		G1/1800
BVH (80°-90°)	31.2	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	352.1	352.1	352.1	352.1	352.1	352.1	352.1	352.1	352.1	352.1	352.1
2.5°	354.8	354.5	354.8	354.1	354.1	353.8	353.8	353.8	353.1	353.8	353.1
5°	362.2	361.9	362.2	361.6	361.6	360.9	360.9	360.9	360.2	360.9	360.6
7.5°	375.1	375.7	375.1	374.4	374.4	373.7	373.4	373.4	373.0	372.7	373.4
10°	393.0	393.6	392.6	391.9	391.6	391.3	390.6	390.3	390.3	388.9	389.2
12.5°	411.9	411.9	410.9	410.5	410.5	409.8	408.5	408.2	408.2	407.5	406.8
15°	428.7	428.7	428.1	426.7	427.1	426.0	425.0	424.4	424.4	423.7	423.0
17.5°	444.3	444.3	443.3	441.9	441.2	440.9	439.6	438.9	438.9	438.2	437.5
20°	459.8	460.5	458.8	457.4	456.1	454.7	453.4	452.7	451.7	452.0	451.7
22.5°	478.4	478.7	476.0	474.3	471.6	469.9	467.9	467.2	465.9	465.9	466.6
25°	502.0	501.7	498.6	495.6	492.6	489.2	486.1	485.5	484.1	483.8	484.1
27.5°	533.1	532.7	529.0	525.0	520.9	515.8	512.1	510.1	509.1	507.7	508.4
30°	571.2	571.9	567.5	562.8	557.7	551.6	546.9	544.2	542.2	540.8	541.5
32.5°	648.9	648.2	641.4	631.3	620.5	606.3	594.8	590.1	586.4	585.1	586.1
35°	726.8	726.2	723.5	720.4	717.7	708.6	700.2	690.4	682.3	677.2	678.6
37.5°	763.6	763.6	761.6	760.9	760.9	766.3	773.1	785.2	794.7	795.4	792.3
40°	821.0	821.0	817.7	816.0	815.0	816.6	821.0	825.4	830.1	831.2	827.8
42.5°	888.6	885.5	883.2	879.8	879.4	881.1	885.9	891.3	896.0	900.0	892.9
45°	961.5	958.8	956.4	954.4	955.7	960.1	966.5	976.0	982.7	988.8	983.1
47.5°	1042.8	1037.1	1039.5	1037.4	1040.8	1049.6	1061.1	1075.2	1082.3	1093.1	1084.0
50°	1144.1	1145.5	1144.1	1144.1	1148.2	1159.6	1176.5	1195.8	1207.9	1214.0	1208.6
52.5°	1294.7	1290.6	1281.5	1284.2	1289.6	1307.8	1329.8	1356.8	1372.3	1386.8	1370.0
55°	1459.4	1460.1	1458.8	1462.5	1472.9	1491.5	1519.2	1560.0	1579.6	1604.9	1584.7
57.5°	1595.8	1600.5	1608.6	1619.8	1642.4	1673.5	1727.8	1790.3	1842.3	1869.6	1837.9
60°	1640.0	1644.8	1664.4	1695.4	1737.9	1801.4	1889.5	1996.5	2090.1	2138.7	2097.1
62.5°	1555.0	1563.7	1592.8	1635.7	1705.9	1805.1	1936.1	2094.4	2238.6	2305.1	2254.8
63°	1527.3	1537.1	1566.8	1610.3	1681.9	1785.5	1927.0	2096.5	2249.1	2319.3	2264.9
65°	1404.4	1410.8	1442.2	1491.8	1571.5	1679.5	1836.9	2037.4	2211.3	2292.6	2234.9
67.5°	1211.0	1219.4	1248.1	1291.0	1368.3	1482.7	1637.3	1837.2	2008.4	2073.5	2024.2
70°	971.3	980.7	1004.3	1044.2	1105.0	1211.0	1343.3	1530.0	1658.6	1709.6	1656.9
72.5°	682.6	686.7	703.9	745.8	791.3	875.7	980.7	1125.9	1249.4	1282.9	1232.2
75°	289.0	289.3	311.9	338.6	395.7	479.7	571.2	696.1	807.2	859.2	795.0
77.5°	92.5	93.5	99.9	109.7	128.6	166.1	233.6	302.1	404.1	453.4	393.3
80°	77.3	78.7	81.4	83.4	84.7	86.8	94.5	105.3	132.7	154.3	124.6
82.5°	66.5	68.9	74.9	77.3	78.7	79.3	80.3	80.0	78.3	77.6	78.0
85°	50.6	56.4	63.1	68.5	69.2	69.5	71.6	72.2	66.8	61.4	66.8
87.5°	21.9	28.4	43.5	48.3	47.3	43.9	46.9	49.6	45.2	33.1	44.2
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°	352.1	352.1	352.1	352.1	352.1	352.1	352.1	352.1
2.5°	353.5	354.1	354.1	354.1	354.1	354.5	354.8	354.5
5°	360.9	361.6	361.2	361.6	361.6	361.9	362.2	361.9
7.5°	373.7	373.7	373.7	374.4	374.4	375.1	375.1	375.1
10°	389.6	389.2	389.2	389.9	390.6	390.9	391.6	391.3
12.5°	406.8	406.1	406.5	407.1	407.8	408.2	408.8	408.5
15°	422.3	422.0	422.0	423.0	423.3	423.7	425.0	425.0
17.5°	437.2	437.2	437.2	438.5	438.9	440.2	441.2	441.2
20°	452.0	452.0	452.0	453.4	454.4	456.4	458.5	458.1
22.5°	467.2	467.6	468.2	469.6	472.0	475.0	476.7	476.7
25°	486.1	487.5	488.8	490.9	494.2	498.3	501.0	502.0
27.5°	510.4	513.5	516.9	519.9	523.6	528.7	532.4	533.1
30°	543.5	547.9	553.3	557.4	562.1	567.8	572.2	574.6
32.5°	590.5	601.3	608.3	622.9	631.6	641.4	649.5	652.9
35°	687.0	697.8	707.3	717.1	719.1	722.5	726.8	727.9
37.5°	782.5	773.8	765.3	765.0	762.6	763.3	764.7	766.3
40°	824.1	821.4	817.0	818.7	819.0	819.0	821.7	822.0
42.5°	890.9	884.5	879.4	883.5	884.2	884.8	887.5	890.6
45°	976.0	966.2	959.8	957.4	959.8	959.1	962.8	963.5
47.5°	1073.2	1060.4	1045.9	1041.1	1039.8	1036.8	1043.2	1042.5
50°	1192.4	1171.8	1154.2	1147.5	1144.1	1142.4	1144.1	1144.1
52.5°	1343.3	1322.7	1298.7	1291.0	1288.3	1292.0	1286.6	1292.3
55°	1550.9	1517.5	1484.7	1474.3	1472.6	1470.9	1471.6	1473.9
57.5°	1784.5	1725.1	1681.2	1655.6	1639.0	1630.9	1622.2	1620.8
60°	2010.0	1902.0	1818.6	1761.9	1721.7	1691.4	1675.8	1670.4
62.5°	2118.8	1960.8	1831.1	1734.6	1674.8	1625.2	1597.8	1590.8
63°	2121.8	1953.3	1815.9	1714.0	1644.4	1599.9	1570.8	1563.4
65°	2065.4	1873.7	1712.6	1600.5	1526.9	1480.4	1444.6	1436.8
67.5°	1860.2	1674.1	1509.4	1395.6	1316.0	1278.5	1239.0	1238.0
70°	1526.6	1360.5	1221.8	1117.1	1050.6	1013.5	973.3	974.3
72.5°	1116.1	968.6	873.0	791.3	721.1	686.0	648.2	651.9
75°	671.8	540.2	454.1	383.2	310.9	267.7	238.7	222.1
77.5°	287.3	196.5	141.1	112.1	94.5	87.4	84.1	83.0
80°	99.9	88.5	83.4	82.0	81.0	79.7	77.3	74.9
82.5°	81.0	81.0	78.3	78.0	74.9	72.6	66.5	63.5
85°	71.9	70.6	68.2	67.2	66.5	61.4	53.7	49.6
87.5°	47.6	44.2	42.2	43.2	41.9	37.5	23.0	18.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)