

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: P143633

Luminaire Tested: **LDRL-5MQ-F02-E-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143633
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-F02-E-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4330.4 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B2 - U0 - G1

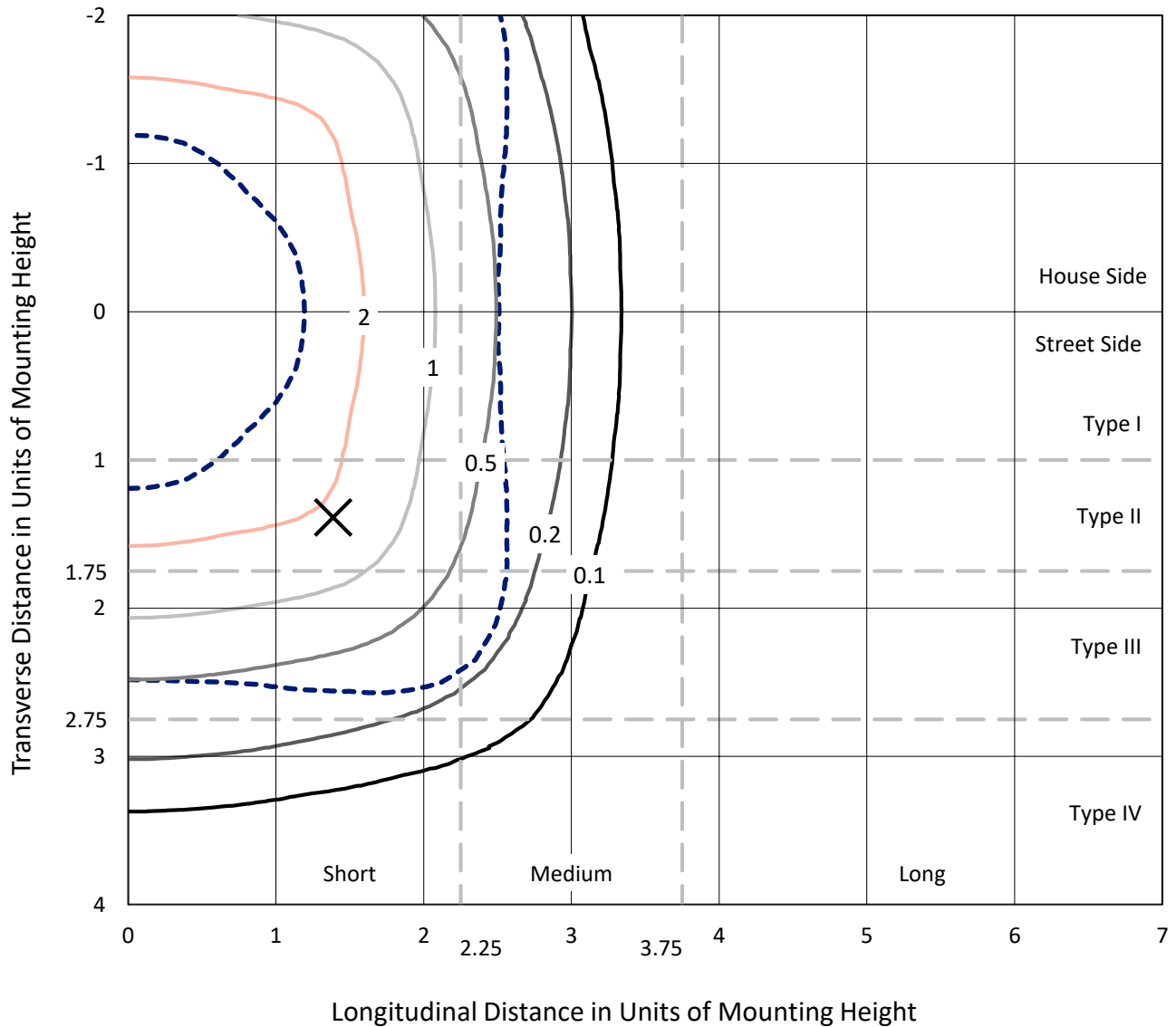
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

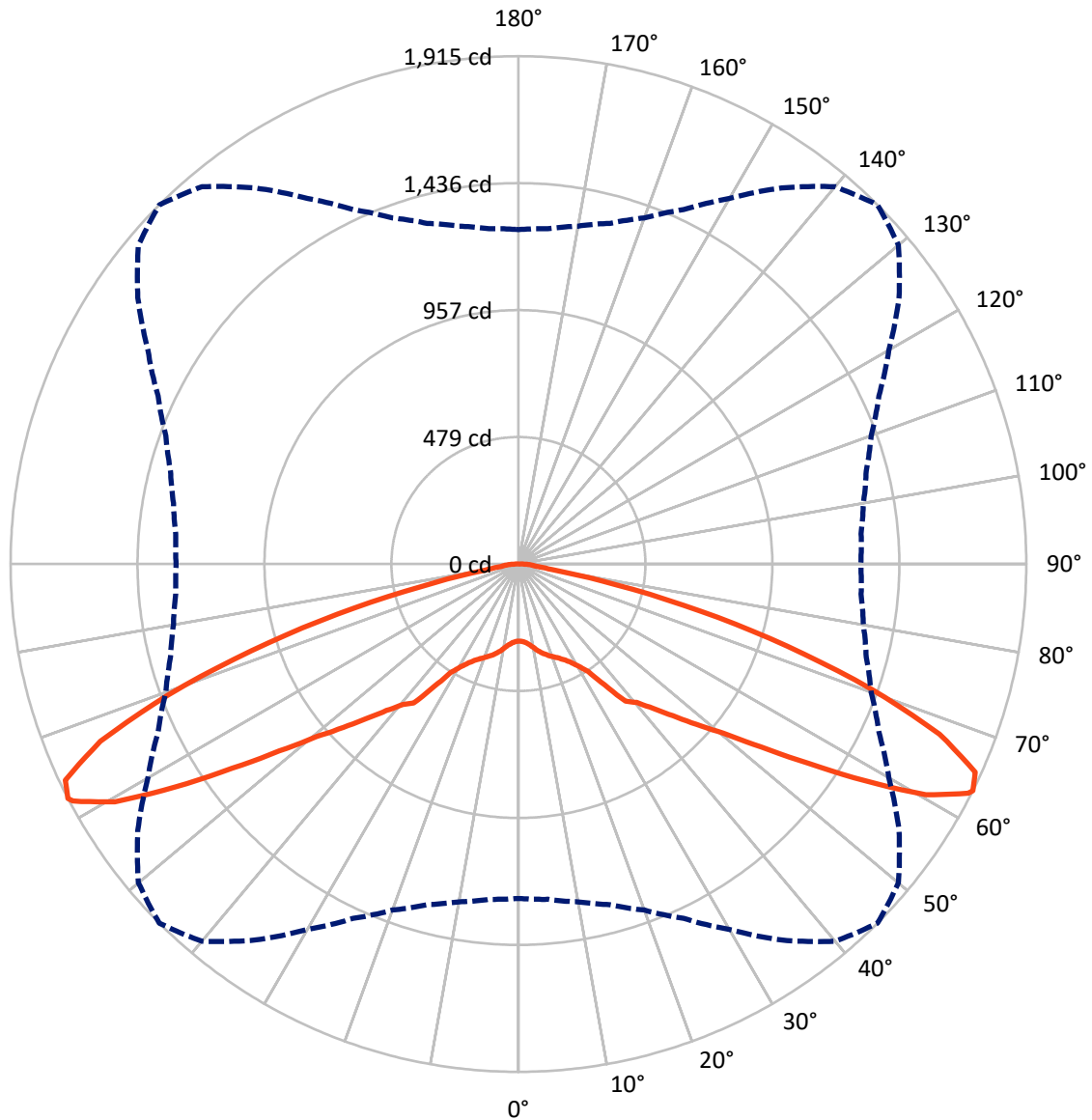
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.2 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	2165.2	0.0	2165.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2165.2	0.0	2165.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	4330.4	0.0	4330.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.3	0.7
10°-20°	100.0	2.3
20°-30°	191.0	4.4
30°-40°	363.8	8.4
40°-50°	626.4	14.5
50°-60°	1119.4	25.8
60°-70°	1363.5	31.5
70°-80°	485.7	11.2
80°-90°	51.5	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°	4330.4	100.0
0°-180°	4330.4	100.0



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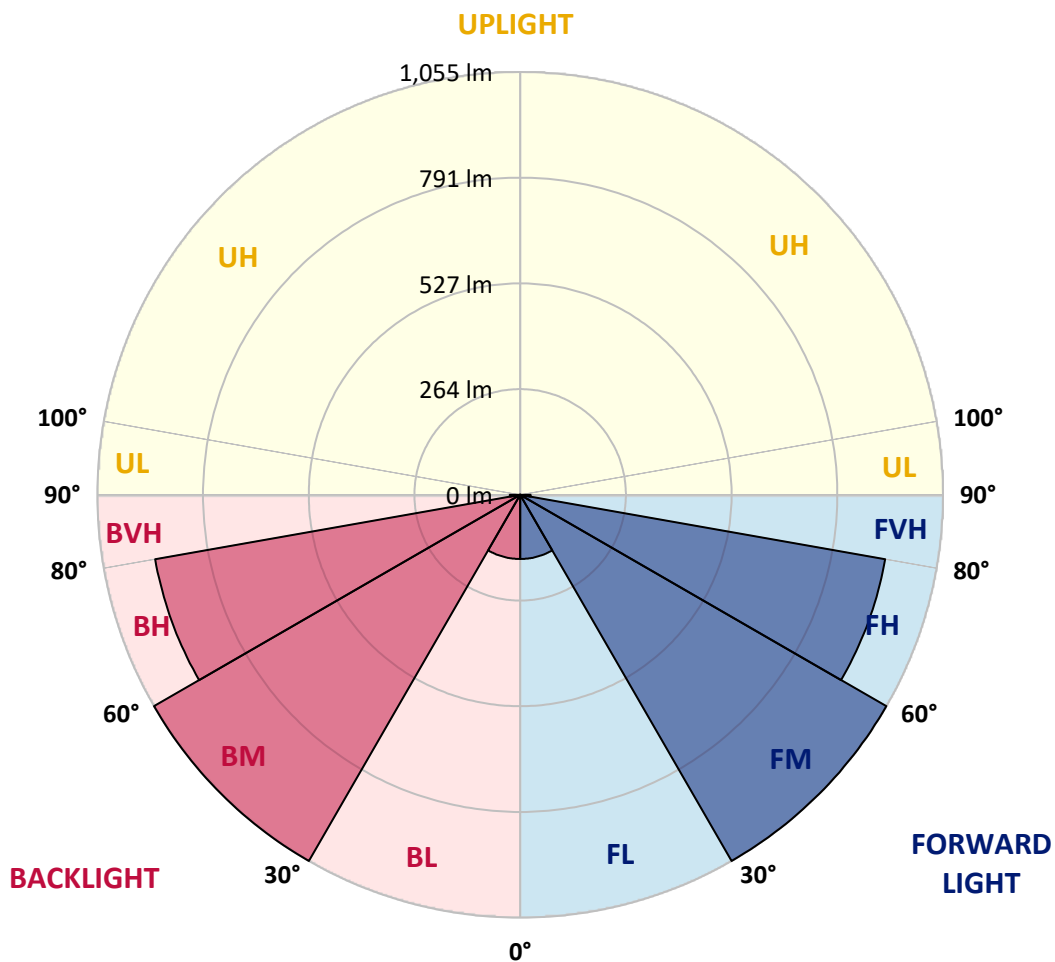
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	160.1	3.7			
FM (30°-60°)	1054.8	24.4			
FH (60°-80°)	924.6	21.4			G1/1800
FVH (80°-90°)	25.7	0.6			G1/100
BL (0°-30°)	160.1	3.7	B1/500		
BM (30°-60°)	1054.8	24.4	B2/2500		
BH (60°-80°)	924.6	21.4	B2/1000		G1/1800
BVH (80°-90°)	25.7	0.6			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°	290.7	290.7	290.7	290.7	290.7	290.7	290.7	290.7	290.7	290.7	290.7
2.5°	292.9	292.6	292.9	292.4	292.4	292.1	292.1	292.1	291.5	292.1	291.5
5°	299.0	298.8	299.0	298.5	298.5	297.9	297.9	297.9	297.4	297.9	297.6
7.5°	309.6	310.2	309.6	309.1	309.1	308.5	308.2	308.2	308.0	307.7	308.2
10°	324.4	325.0	324.1	323.6	323.3	323.0	322.4	322.2	322.2	321.1	321.3
12.5°	340.0	340.0	339.2	338.9	338.9	338.3	337.2	336.9	336.9	336.4	335.8
15°	353.9	353.9	353.4	352.3	352.5	351.7	350.9	350.3	350.3	349.8	349.2
17.5°	366.8	366.8	365.9	364.8	364.3	364.0	362.9	362.3	362.3	361.7	361.2
20°	379.6	380.1	378.7	377.6	376.5	375.4	374.3	373.7	372.9	373.2	372.9
22.5°	394.9	395.2	393.0	391.6	389.3	387.9	386.3	385.7	384.6	384.6	385.2
25°	414.4	414.1	411.6	409.1	406.6	403.8	401.3	400.8	399.6	399.4	399.6
27.5°	440.1	439.8	436.7	433.4	430.0	425.8	422.8	421.1	420.3	419.2	419.7
30°	471.6	472.1	468.5	464.6	460.4	455.4	451.5	449.3	447.6	446.5	447.0
32.5°	535.7	535.1	529.5	521.2	512.2	500.5	491.1	487.2	484.1	483.0	483.8
35°	600.0	599.5	597.2	594.7	592.5	585.0	578.0	569.9	563.2	559.1	560.2
37.5°	630.4	630.4	628.7	628.2	628.2	632.6	638.2	648.2	656.0	656.6	654.1
40°	677.8	677.8	675.0	673.6	672.8	674.2	677.8	681.4	685.3	686.1	683.4
42.5°	733.5	731.0	729.1	726.3	726.0	727.4	731.3	735.8	739.7	743.0	737.1
45°	793.7	791.5	789.5	787.9	789.0	792.6	797.9	805.7	811.3	816.3	811.6
47.5°	860.9	856.1	858.1	856.4	859.2	866.5	875.9	887.6	893.5	902.4	894.9
50°	944.5	945.6	944.5	944.5	947.8	957.3	971.2	987.1	997.2	1002.2	997.7
52.5°	1068.8	1065.4	1057.9	1060.2	1064.6	1079.7	1097.8	1120.1	1132.9	1144.9	1130.9
55°	1204.8	1205.4	1204.2	1207.3	1215.9	1231.3	1254.1	1287.8	1304.0	1324.9	1308.2
57.5°	1317.4	1321.3	1328.0	1337.2	1355.8	1381.5	1426.4	1477.9	1520.8	1543.4	1517.2
60°	1353.9	1357.8	1374.0	1399.6	1434.7	1487.1	1559.9	1648.2	1725.4	1765.5	1731.2
62.5°	1283.7	1290.9	1314.9	1350.3	1408.2	1490.2	1598.3	1729.0	1848.0	1902.9	1861.4
63°	1260.8	1268.9	1293.4	1329.4	1388.5	1474.0	1590.8	1730.7	1856.7	1914.6	1869.8
65°	1159.4	1164.7	1190.6	1231.5	1297.3	1386.5	1516.4	1681.9	1825.4	1892.6	1845.0
67.5°	999.7	1006.6	1030.3	1065.7	1129.5	1224.0	1351.7	1516.7	1658.0	1711.7	1671.1
70°	801.8	809.6	829.1	862.0	912.2	999.7	1108.9	1263.0	1369.2	1411.3	1367.8
72.5°	563.5	566.9	581.1	615.6	653.3	722.9	809.6	929.4	1031.4	1059.0	1017.2
75°	238.6	238.8	257.5	279.5	326.6	396.0	471.6	574.7	666.4	709.3	656.3
77.5°	76.4	77.2	82.5	90.6	106.2	137.1	192.9	249.4	333.6	374.3	324.7
80°	63.8	64.9	67.2	68.8	70.0	71.6	78.0	87.0	109.5	127.4	102.8
82.5°	54.9	56.9	61.9	63.8	64.9	65.5	66.3	66.1	64.7	64.1	64.4
85°	41.8	46.5	52.1	56.6	57.1	57.4	59.1	59.6	55.2	50.7	55.2
87.5°	18.1	23.4	36.0	39.9	39.0	36.2	38.7	41.0	37.3	27.3	36.5
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°	290.7	290.7	290.7	290.7	290.7	290.7	290.7	290.7
2.5°	291.8	292.4	292.4	292.4	292.4	292.6	292.9	292.6
5°	297.9	298.5	298.2	298.5	298.5	298.8	299.0	298.8
7.5°	308.5	308.5	308.5	309.1	309.1	309.6	309.6	309.6
10°	321.6	321.3	321.3	321.9	322.4	322.7	323.3	323.0
12.5°	335.8	335.3	335.5	336.1	336.7	336.9	337.5	337.2
15°	348.6	348.4	348.4	349.2	349.5	349.8	350.9	350.9
17.5°	360.9	360.9	360.9	362.0	362.3	363.4	364.3	364.3
20°	373.2	373.2	373.2	374.3	375.1	376.8	378.5	378.2
22.5°	385.7	386.0	386.5	387.7	389.6	392.1	393.5	393.5
25°	401.3	402.4	403.5	405.2	408.0	411.4	413.6	414.4
27.5°	421.4	423.9	426.7	429.2	432.3	436.4	439.5	440.1
30°	448.7	452.3	456.8	460.1	464.0	468.8	472.4	474.3
32.5°	487.4	496.4	502.2	514.2	521.4	529.5	536.2	539.0
35°	567.1	576.1	583.9	591.9	593.6	596.4	600.0	600.9
37.5°	646.0	638.8	631.8	631.5	629.6	630.1	631.2	632.6
40°	680.3	678.1	674.4	675.8	676.1	676.1	678.3	678.6
42.5°	735.5	730.2	726.0	729.3	729.9	730.5	732.7	735.2
45°	805.7	797.6	792.3	790.4	792.3	791.8	794.8	795.4
47.5°	886.0	875.4	863.4	859.5	858.4	855.9	861.2	860.6
50°	984.3	967.3	952.9	947.3	944.5	943.1	944.5	944.5
52.5°	1108.9	1091.9	1072.1	1065.7	1063.5	1066.6	1062.1	1066.8
55°	1280.3	1252.7	1225.7	1217.1	1215.7	1214.3	1214.8	1216.8
57.5°	1473.2	1424.1	1387.9	1366.7	1353.1	1346.4	1339.1	1338.0
60°	1659.3	1570.2	1501.3	1454.5	1421.3	1396.3	1383.4	1379.0
62.5°	1749.1	1618.7	1511.6	1431.9	1382.6	1341.6	1319.1	1313.2
63°	1751.6	1612.5	1499.1	1414.9	1357.5	1320.7	1296.8	1290.6
65°	1705.1	1546.8	1413.8	1321.3	1260.5	1222.1	1192.5	1186.1
67.5°	1535.6	1382.0	1246.0	1152.1	1086.4	1055.4	1022.8	1022.0
70°	1260.3	1123.1	1008.6	922.2	867.3	836.6	803.5	804.3
72.5°	921.4	799.6	720.7	653.3	595.3	566.3	535.1	538.2
75°	554.6	445.9	374.8	316.3	256.7	221.0	197.0	183.4
77.5°	237.2	162.2	116.5	92.5	78.0	72.2	69.4	68.6
80°	82.5	73.0	68.8	67.7	66.9	65.8	63.8	61.9
82.5°	66.9	66.9	64.7	64.4	61.9	59.9	54.9	52.4
85°	59.4	58.2	56.3	55.5	54.9	50.7	44.3	41.0
87.5°	39.3	36.5	34.8	35.7	34.6	30.9	19.0	15.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)