

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: P143634

Luminaire Tested: **LDRL-5MQ-F02-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143634
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-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (14) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4686.3 lumens
Efficiency: N/A
Efficacy: 85.2 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

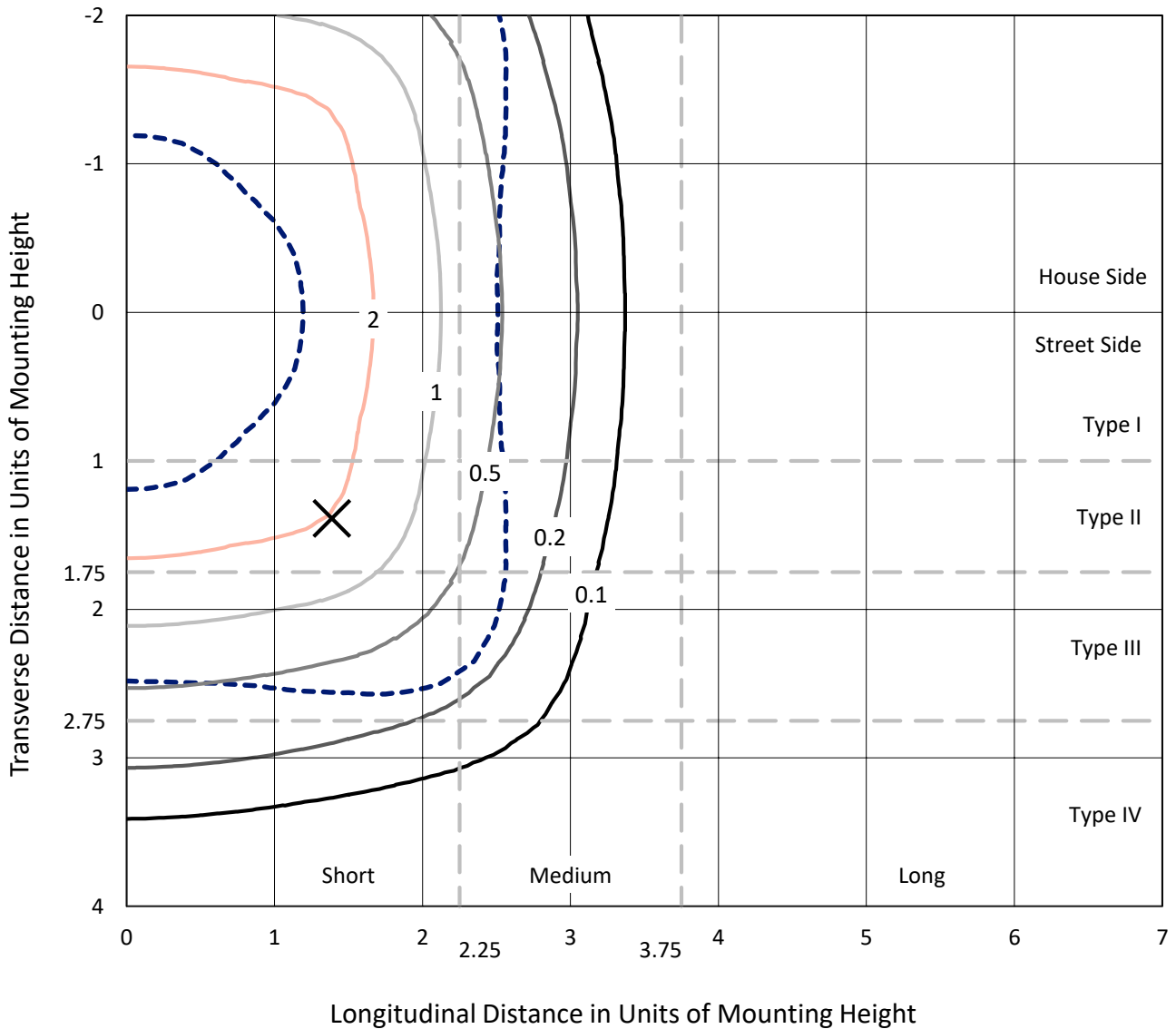
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

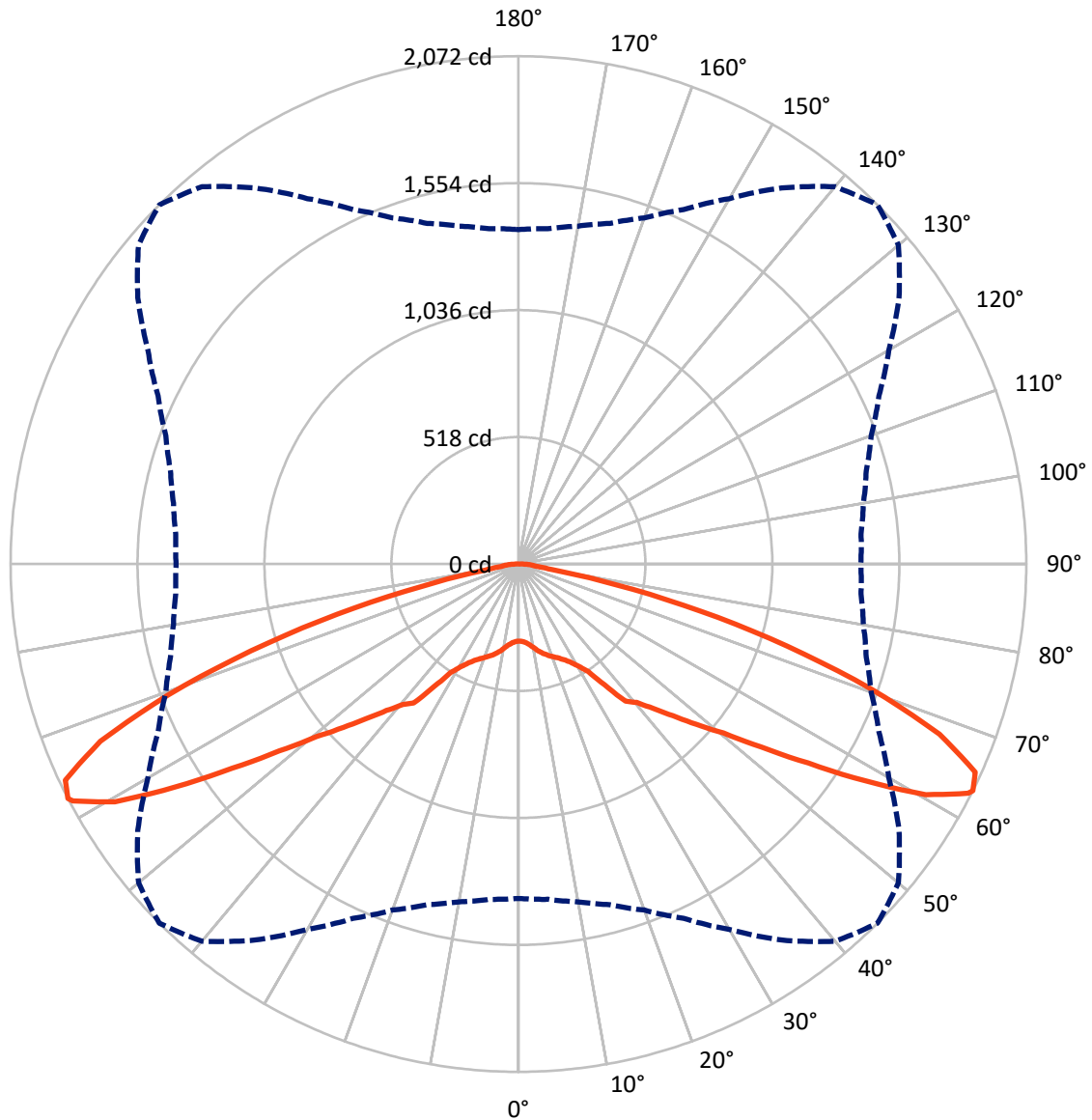
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.5 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	2343.2	0.0	2343.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2343.2	0.0	2343.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	4686.3	0.0	4686.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.7	0.7
10°-20°	108.2	2.3
20°-30°	206.6	4.4
30°-40°	393.7	8.4
40°-50°	677.9	14.5
50°-60°	1211.4	25.8
60°-70°	1475.5	31.5
70°-80°	525.6	11.2
80°-90°	55.7	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°	4686.3	100.0
0°-180°	4686.3	100.0



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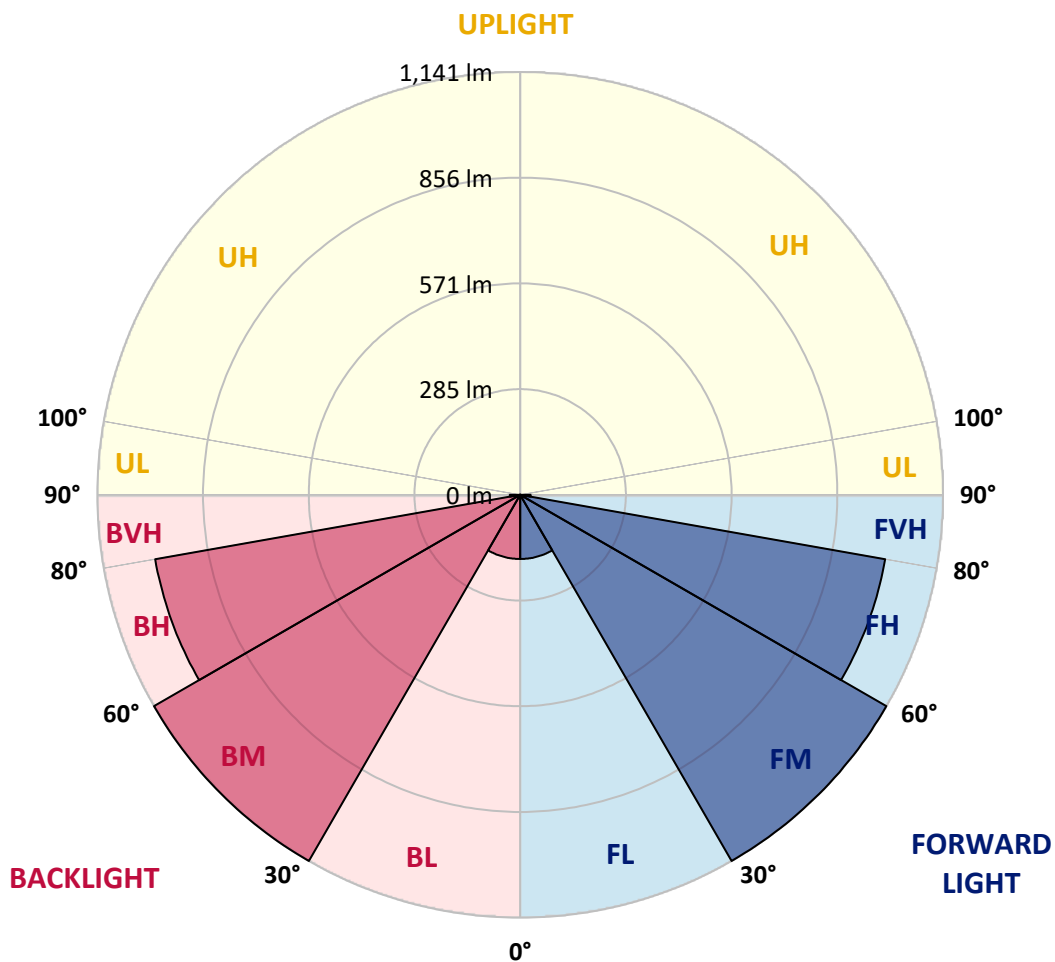
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	173.3	3.7			
FM (30°-60°)	1141.5	24.4			
FH (60°-80°)	1000.5	21.4			G1/1800
FVH (80°-90°)	27.9	0.6			G1/100
BL (0°-30°)	173.3	3.7	B1/500		
BM (30°-60°)	1141.5	24.4	B2/2500		
BH (60°-80°)	1000.5	21.4	B3/2500		G1/1800
BVH (80°-90°)	27.9	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°	314.6	314.6	314.6	314.6	314.6	314.6	314.6	314.6	314.6	314.6	314.6
2.5°	317.0	316.7	317.0	316.4	316.4	316.1	316.1	316.1	315.5	316.1	315.5
5°	323.6	323.3	323.6	323.0	323.0	322.4	322.4	322.4	321.8	322.4	322.1
7.5°	335.1	335.7	335.1	334.5	334.5	333.9	333.6	333.6	333.3	333.0	333.6
10°	351.1	351.7	350.8	350.2	349.9	349.6	348.9	348.6	348.6	347.4	347.7
12.5°	367.9	367.9	367.0	366.7	366.7	366.1	364.9	364.6	364.6	364.0	363.4
15°	383.0	383.0	382.4	381.2	381.5	380.6	379.7	379.1	379.1	378.5	377.9
17.5°	396.9	396.9	396.0	394.8	394.2	393.9	392.7	392.1	392.1	391.5	390.9
20°	410.8	411.4	409.9	408.7	407.5	406.3	405.0	404.4	403.5	403.8	403.5
22.5°	427.4	427.7	425.3	423.7	421.3	419.8	418.0	417.4	416.2	416.2	416.8
25°	448.5	448.2	445.5	442.7	440.0	437.0	434.3	433.7	432.5	432.2	432.5
27.5°	476.2	475.9	472.6	469.0	465.4	460.8	457.5	455.7	454.8	453.6	454.2
30°	510.3	510.9	507.0	502.8	498.2	492.8	488.6	486.2	484.4	483.2	483.8
32.5°	579.7	579.1	573.0	564.0	554.3	541.7	531.4	527.2	523.9	522.7	523.6
35°	649.3	648.7	646.3	643.6	641.2	633.1	625.5	616.8	609.5	605.0	606.2
37.5°	682.2	682.2	680.4	679.8	679.8	684.6	690.7	701.5	710.0	710.6	707.8
40°	733.5	733.5	730.5	729.0	728.1	729.6	733.5	737.4	741.6	742.5	739.5
42.5°	793.8	791.1	789.0	786.0	785.7	787.2	791.4	796.2	800.4	804.1	797.7
45°	858.9	856.5	854.4	852.6	853.8	857.7	863.5	871.9	877.9	883.4	878.3
47.5°	931.6	926.5	928.6	926.8	929.8	937.7	947.9	960.6	966.9	976.6	968.4
50°	1022.1	1023.3	1022.1	1022.1	1025.7	1036.0	1051.1	1068.3	1079.1	1084.5	1079.7
52.5°	1156.6	1153.0	1144.9	1147.3	1152.1	1168.4	1188.0	1212.1	1226.0	1239.0	1223.9
55°	1303.8	1304.4	1303.2	1306.5	1315.9	1332.5	1357.2	1393.7	1411.2	1433.8	1415.7
57.5°	1425.7	1429.9	1437.1	1447.1	1467.3	1495.0	1543.6	1599.4	1645.8	1670.2	1641.9
60°	1465.2	1469.4	1486.9	1514.6	1552.6	1609.3	1688.0	1783.6	1867.2	1910.6	1873.5
62.5°	1389.2	1397.0	1422.9	1461.2	1524.0	1612.6	1729.7	1871.1	1999.9	2059.3	2014.4
63°	1364.4	1373.2	1399.7	1438.6	1502.6	1595.1	1721.5	1872.9	2009.2	2072.0	2023.4
65°	1254.6	1260.4	1288.4	1332.8	1403.9	1500.4	1641.0	1820.1	1975.5	2048.1	1996.6
67.5°	1081.8	1089.4	1115.0	1153.3	1222.4	1324.6	1462.7	1641.3	1794.2	1852.4	1808.4
70°	867.7	876.1	897.3	932.8	987.1	1081.8	1200.1	1366.8	1481.7	1527.3	1480.2
72.5°	609.8	613.4	628.8	666.2	706.9	782.3	876.1	1005.8	1116.2	1146.1	1100.8
75°	258.2	258.5	278.7	302.5	353.5	428.6	510.3	621.9	721.1	767.6	710.3
77.5°	82.6	83.5	89.3	98.0	114.9	148.4	208.7	269.9	361.0	405.0	351.4
80°	69.1	70.3	72.7	74.5	75.7	77.5	84.4	94.1	118.5	137.8	111.3
82.5°	59.4	61.5	67.0	69.1	70.3	70.9	71.8	71.5	70.0	69.4	69.7
85°	45.2	50.4	56.4	61.2	61.8	62.1	63.9	64.5	59.7	54.9	59.7
87.5°	19.6	25.3	38.9	43.1	42.2	39.2	41.9	44.3	40.4	29.6	39.5
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°	314.6	314.6	314.6	314.6	314.6	314.6	314.6	314.6
2.5°	315.8	316.4	316.4	316.4	316.4	316.7	317.0	316.7
5°	322.4	323.0	322.7	323.0	323.0	323.3	323.6	323.3
7.5°	333.9	333.9	333.9	334.5	334.5	335.1	335.1	335.1
10°	348.0	347.7	347.7	348.3	348.9	349.2	349.9	349.6
12.5°	363.4	362.8	363.1	363.7	364.3	364.6	365.2	364.9
15°	377.3	377.0	377.0	377.9	378.2	378.5	379.7	379.7
17.5°	390.6	390.6	390.6	391.8	392.1	393.3	394.2	394.2
20°	403.8	403.8	403.8	405.0	406.0	407.8	409.6	409.3
22.5°	417.4	417.7	418.3	419.5	421.6	424.3	425.9	425.9
25°	434.3	435.5	436.7	438.5	441.5	445.2	447.6	448.5
27.5°	456.0	458.7	461.7	464.5	467.8	472.3	475.6	476.2
30°	485.6	489.5	494.3	497.9	502.2	507.3	511.2	513.3
32.5°	527.5	537.1	543.5	556.4	564.3	573.0	580.3	583.3
35°	613.8	623.4	631.8	640.6	642.4	645.4	649.3	650.2
37.5°	699.1	691.3	683.7	683.4	681.3	681.9	683.1	684.6
40°	736.2	733.8	729.9	731.4	731.7	731.7	734.1	734.4
42.5°	795.9	790.2	785.7	789.3	789.9	790.5	792.9	795.6
45°	871.9	863.2	857.4	855.3	857.4	856.8	860.2	860.8
47.5°	958.8	947.3	934.3	930.1	928.9	926.2	931.9	931.3
50°	1065.2	1046.8	1031.2	1025.1	1022.1	1020.6	1022.1	1022.1
52.5°	1200.1	1181.7	1160.2	1153.3	1150.9	1154.2	1149.4	1154.5
55°	1385.5	1355.7	1326.4	1317.1	1315.6	1314.1	1314.7	1316.8
57.5°	1594.2	1541.2	1502.0	1479.0	1464.3	1457.0	1449.2	1448.0
60°	1795.7	1699.2	1624.7	1574.0	1538.1	1511.0	1497.1	1492.3
62.5°	1892.8	1751.7	1635.9	1549.6	1496.2	1451.9	1427.5	1421.1
63°	1895.5	1745.0	1622.3	1531.2	1469.1	1429.3	1403.3	1396.7
65°	1845.2	1673.9	1530.0	1429.9	1364.1	1322.5	1290.5	1283.6
67.5°	1661.8	1495.6	1348.4	1246.8	1175.6	1142.1	1106.9	1106.0
70°	1363.8	1215.4	1091.5	998.0	938.6	905.4	869.5	870.4
72.5°	997.1	865.3	779.9	706.9	644.2	612.8	579.1	582.4
75°	600.2	482.6	405.6	342.3	277.8	239.2	213.2	198.5
77.5°	256.7	175.5	126.1	100.1	84.4	78.1	75.1	74.2
80°	89.3	79.0	74.5	73.3	72.4	71.2	69.1	67.0
82.5°	72.4	72.4	70.0	69.7	67.0	64.8	59.4	56.7
85°	64.2	63.0	60.9	60.0	59.4	54.9	48.0	44.3
87.5°	42.5	39.5	37.7	38.6	37.4	33.5	20.5	16.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)