

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: P143629

Luminaire Tested: **LDRL-5MQ-E02-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143629
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-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5676.8 lumens
Efficiency: N/A
Efficacy: 109.0 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

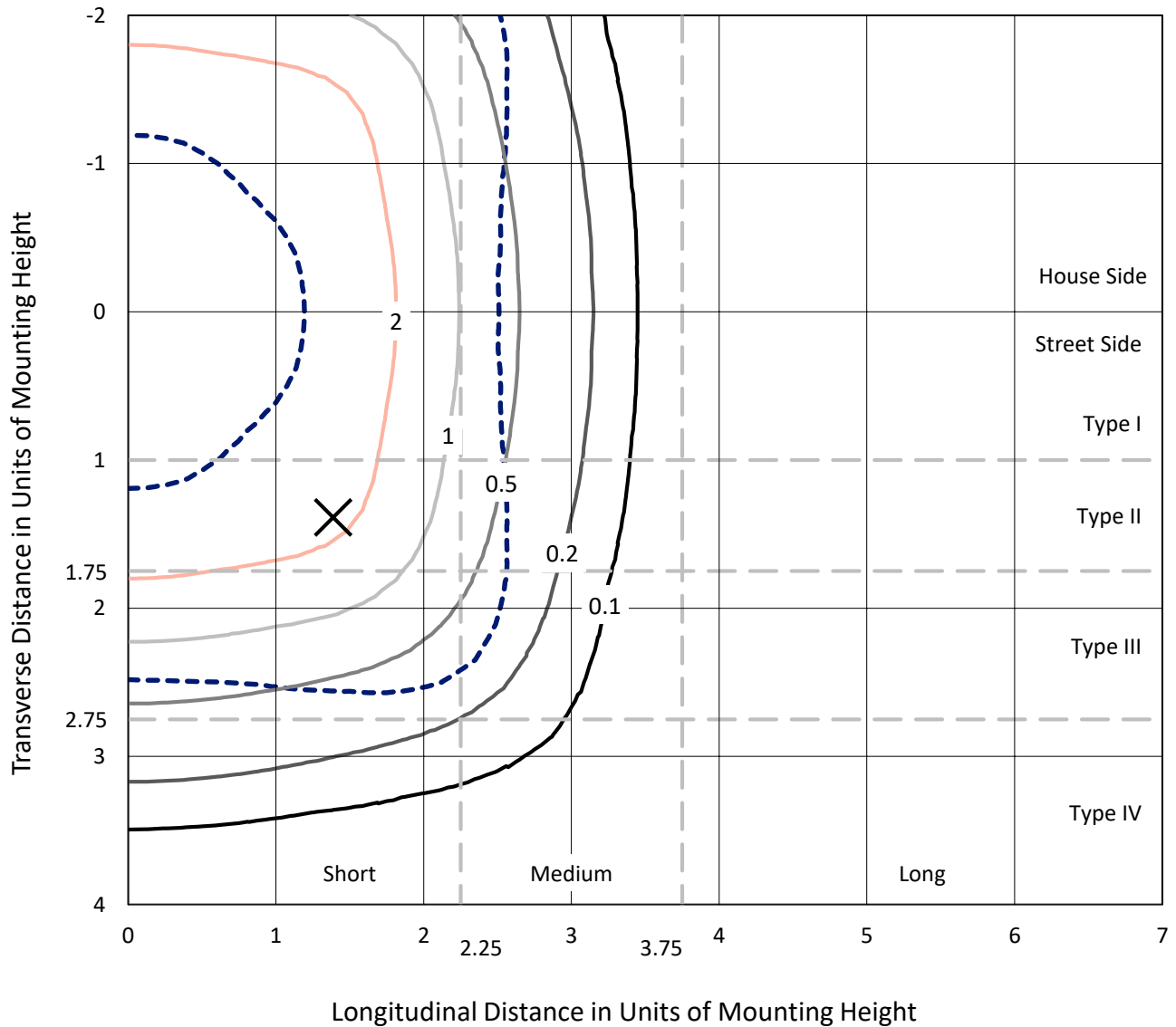
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

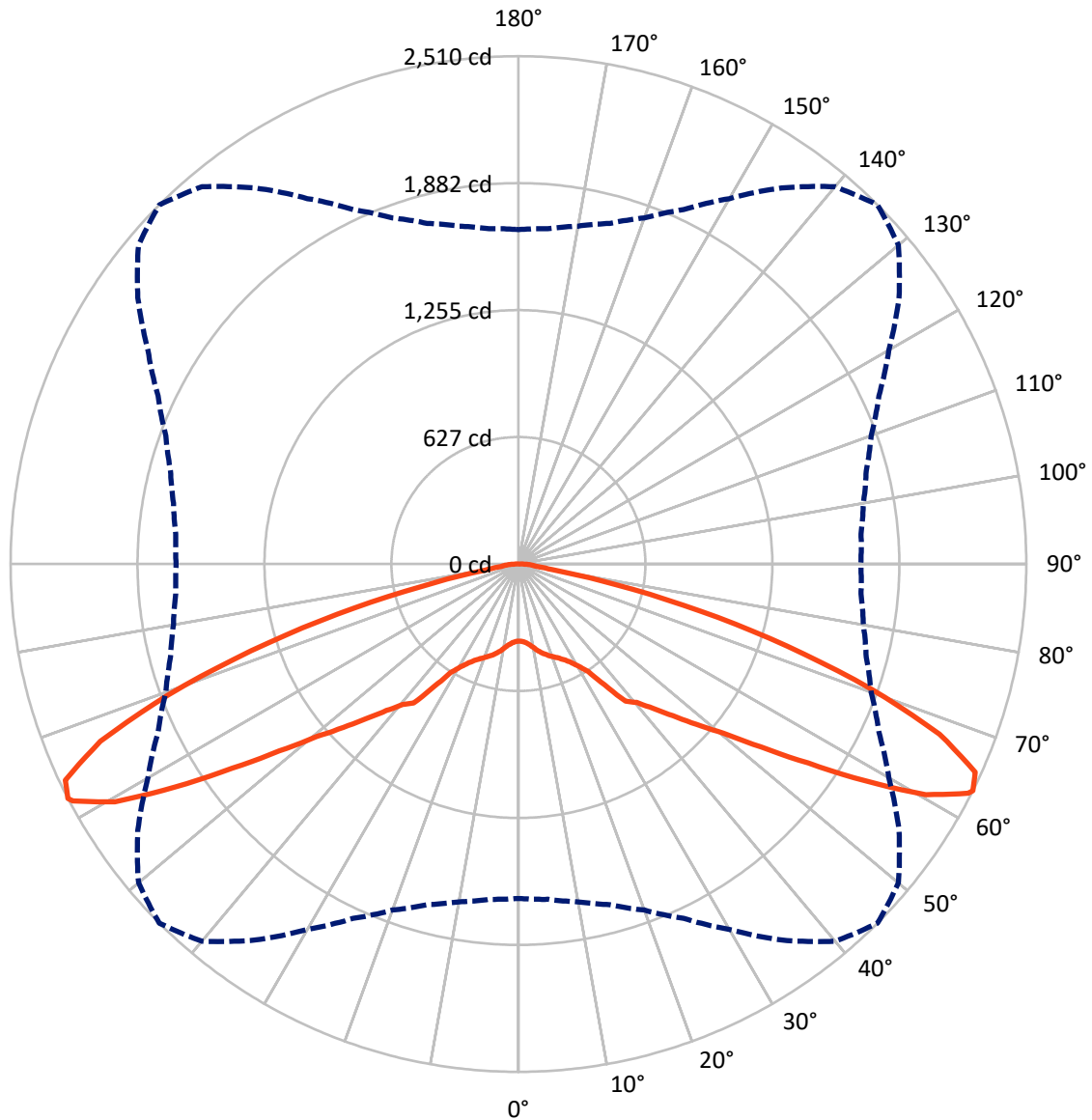
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.2 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	2838.4	0.0	2838.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2838.4	0.0	2838.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	5676.8	0.0	5676.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.4	0.7
10°-20°	131.1	2.3
20°-30°	250.3	4.4
30°-40°	476.9	8.4
40°-50°	821.2	14.5
50°-60°	1467.4	25.8
60°-70°	1787.4	31.5
70°-80°	636.7	11.2
80°-90°	67.5	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°	5676.8	100.0
0°-180°	5676.8	100.0



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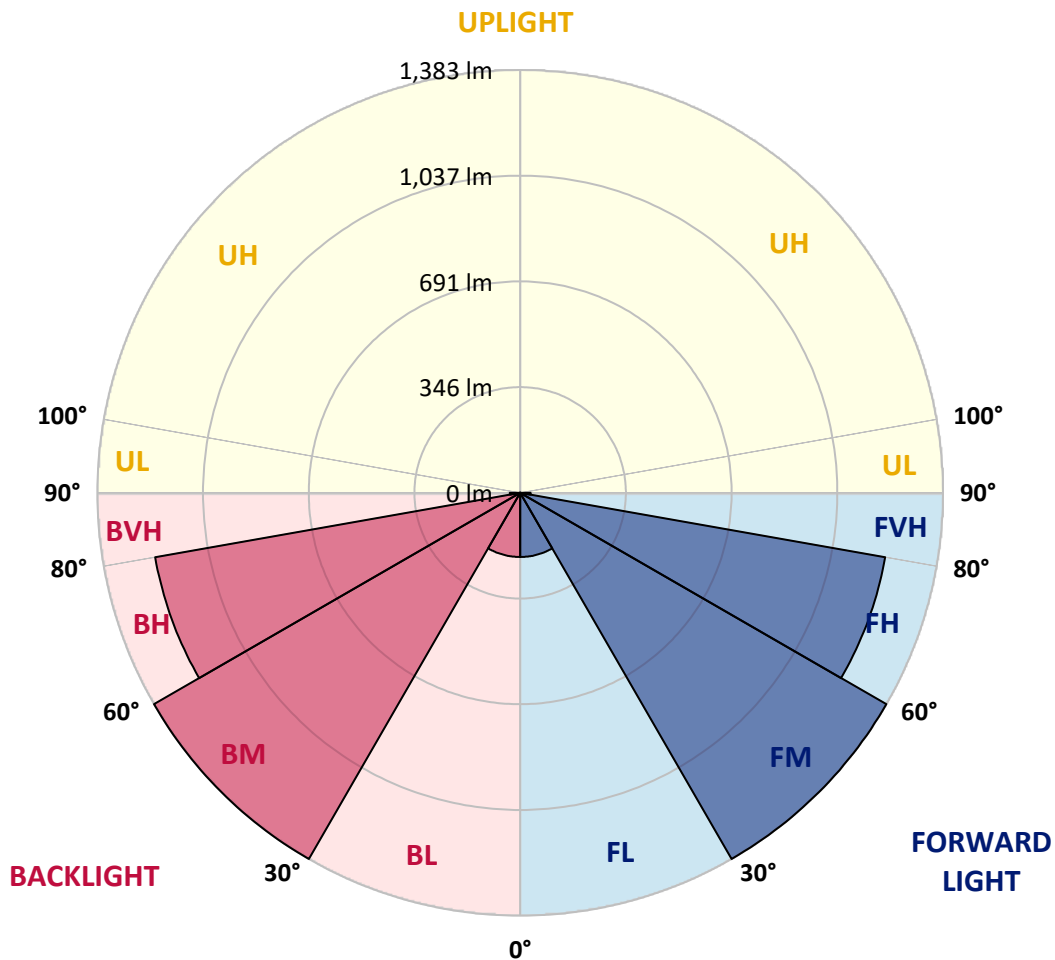
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	209.9	3.7			
FM	(30°-60°)	1382.8	24.4			
FH	(60°-80°)	1212.0	21.4			G1/1800
FVH	(80°-90°)	33.8	0.6			G1/100
BL	(0°-30°)	209.9	3.7	B1/500		
BM	(30°-60°)	1382.8	24.4	B2/2500		
BH	(60°-80°)	1212.0	21.4	B3/2500		G1/1800
BVH	(80°-90°)	33.8	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°	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
2.5°	384.0	383.6	384.0	383.2	383.2	382.9	382.9	382.9	382.1	382.9	382.1
5°	392.0	391.6	392.0	391.3	391.3	390.5	390.5	390.5	389.8	390.5	390.2
7.5°	405.9	406.6	405.9	405.2	405.2	404.4	404.1	404.1	403.7	403.3	404.1
10°	425.3	426.0	424.9	424.2	423.8	423.4	422.7	422.3	422.3	420.9	421.2
12.5°	445.7	445.7	444.6	444.3	444.3	443.5	442.1	441.7	441.7	441.0	440.2
15°	464.0	464.0	463.3	461.8	462.2	461.1	460.0	459.2	459.2	458.5	457.8
17.5°	480.8	480.8	479.7	478.2	477.5	477.1	475.7	474.9	474.9	474.2	473.5
20°	497.6	498.3	496.5	495.0	493.6	492.1	490.7	489.9	488.8	489.2	488.8
22.5°	517.7	518.1	515.1	513.3	510.4	508.6	506.4	505.6	504.2	504.2	504.9
25°	543.3	542.9	539.6	536.3	533.0	529.4	526.1	525.4	523.9	523.5	523.9
27.5°	576.9	576.5	572.5	568.1	563.7	558.2	554.2	552.0	550.9	549.5	550.2
30°	618.2	618.9	614.1	609.0	603.5	597.0	591.9	588.9	586.7	585.3	586.0
32.5°	702.2	701.5	694.1	683.2	671.5	656.2	643.7	638.6	634.6	633.1	634.2
35°	786.6	785.8	782.9	779.6	776.7	766.8	757.7	747.1	738.4	732.9	734.3
37.5°	826.4	826.4	824.2	823.5	823.5	829.3	836.6	849.8	860.0	860.7	857.5
40°	888.5	888.5	884.9	883.0	881.9	883.8	888.5	893.3	898.4	899.5	895.8
42.5°	961.6	958.3	955.7	952.1	951.7	953.5	958.7	964.5	969.6	974.0	966.3
45°	1040.5	1037.6	1035.0	1032.8	1034.3	1039.0	1046.0	1056.2	1063.5	1070.1	1063.9
47.5°	1128.5	1122.3	1124.9	1122.7	1126.3	1135.8	1148.3	1163.6	1171.3	1183.0	1173.1
50°	1238.1	1239.6	1238.1	1238.1	1242.5	1254.9	1273.2	1294.0	1307.2	1313.8	1307.9
52.5°	1401.1	1396.7	1386.8	1389.8	1395.6	1415.3	1439.1	1468.3	1485.1	1500.8	1482.6
55°	1579.4	1580.1	1578.6	1582.7	1594.0	1614.1	1644.0	1688.2	1709.4	1736.8	1714.9
57.5°	1727.0	1732.1	1740.8	1752.9	1777.4	1811.0	1869.8	1937.4	1993.7	2023.3	1988.9
60°	1774.8	1779.9	1801.1	1834.7	1880.8	1949.5	2044.8	2160.6	2261.8	2314.4	2269.5
62.5°	1682.8	1692.3	1723.7	1770.1	1846.1	1953.5	2095.2	2266.6	2422.6	2494.5	2440.1
63°	1652.8	1663.4	1695.5	1742.7	1820.1	1932.3	2085.4	2268.8	2433.9	2509.9	2451.1
65°	1519.8	1526.8	1560.7	1614.4	1700.7	1817.6	1987.8	2204.8	2393.0	2481.0	2418.6
67.5°	1310.5	1319.6	1350.7	1397.1	1480.7	1604.6	1771.9	1988.2	2173.4	2243.9	2190.6
70°	1051.1	1061.3	1086.9	1130.0	1195.8	1310.5	1453.7	1655.7	1794.9	1850.1	1793.1
72.5°	738.7	743.1	761.7	807.0	856.4	947.7	1061.3	1218.4	1352.1	1388.3	1333.5
75°	312.7	313.1	337.6	366.4	428.2	519.1	618.2	753.3	873.5	929.8	860.4
77.5°	100.1	101.2	108.1	118.7	139.2	179.7	252.8	327.0	437.3	490.7	425.6
80°	83.7	85.1	88.0	90.2	91.7	93.9	102.3	114.0	143.6	167.0	134.8
82.5°	72.0	74.5	81.1	83.7	85.1	85.9	87.0	86.6	84.8	84.0	84.4
85°	54.8	61.0	68.3	74.2	74.9	75.3	77.5	78.2	72.3	66.5	72.3
87.5°	23.7	30.7	47.1	52.2	51.1	47.5	50.8	53.7	49.0	35.8	47.9
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°	381.0	381.0	381.0	381.0	381.0	381.0	381.0	381.0
2.5°	382.5	383.2	383.2	383.2	383.2	383.6	384.0	383.6
5°	390.5	391.3	390.9	391.3	391.3	391.6	392.0	391.6
7.5°	404.4	404.4	404.4	405.2	405.2	405.9	405.9	405.9
10°	421.6	421.2	421.2	422.0	422.7	423.1	423.8	423.4
12.5°	440.2	439.5	439.9	440.6	441.3	441.7	442.4	442.1
15°	457.0	456.7	456.7	457.8	458.1	458.5	460.0	460.0
17.5°	473.1	473.1	473.1	474.6	474.9	476.4	477.5	477.5
20°	489.2	489.2	489.2	490.7	491.7	493.9	496.1	495.8
22.5°	505.6	506.0	506.7	508.2	510.7	514.0	515.9	515.9
25°	526.1	527.6	529.0	531.2	534.9	539.2	542.2	543.3
27.5°	552.4	555.7	559.3	562.6	566.6	572.1	576.1	576.9
30°	588.2	592.9	598.8	603.2	608.3	614.5	619.3	621.8
32.5°	639.0	650.7	658.3	674.1	683.6	694.1	702.9	706.6
35°	743.5	755.2	765.4	776.0	778.2	781.8	786.6	787.7
37.5°	846.9	837.4	828.2	827.9	825.3	826.0	827.5	829.3
40°	891.8	888.9	884.1	885.9	886.3	886.3	889.2	889.6
42.5°	964.1	957.2	951.7	956.1	956.8	957.6	960.5	963.8
45°	1056.2	1045.6	1038.7	1036.1	1038.7	1037.9	1042.0	1042.7
47.5°	1161.4	1147.5	1131.8	1126.7	1125.2	1122.0	1128.9	1128.2
50°	1290.4	1268.1	1249.1	1241.8	1238.1	1236.3	1238.1	1238.1
52.5°	1453.7	1431.4	1405.5	1397.1	1394.1	1398.2	1392.3	1398.5
55°	1678.4	1642.2	1606.8	1595.4	1593.6	1591.8	1592.5	1595.1
57.5°	1931.2	1866.9	1819.4	1791.6	1773.7	1765.0	1755.5	1754.0
60°	2175.2	2058.3	1968.1	1906.7	1863.2	1830.4	1813.5	1807.7
62.5°	2292.9	2121.9	1981.6	1877.1	1812.5	1758.7	1729.2	1721.5
63°	2296.2	2113.9	1965.2	1854.8	1779.6	1731.3	1699.9	1691.9
65°	2235.2	2027.6	1853.4	1732.1	1652.4	1602.0	1563.3	1554.9
67.5°	2013.0	1811.7	1633.4	1510.3	1424.1	1383.5	1340.8	1339.7
70°	1652.1	1472.3	1322.2	1208.9	1136.9	1096.8	1053.3	1054.4
72.5°	1207.8	1048.2	944.8	856.4	780.4	742.4	701.5	705.5
75°	727.0	584.5	491.4	414.7	336.5	289.7	258.3	240.4
77.5°	310.9	212.6	152.7	121.3	102.3	94.6	91.0	89.9
80°	108.1	95.7	90.2	88.8	87.7	86.2	83.7	81.1
82.5°	87.7	87.7	84.8	84.4	81.1	78.5	72.0	68.7
85°	77.8	76.4	73.8	72.7	72.0	66.5	58.1	53.7
87.5°	51.5	47.9	45.7	46.8	45.3	40.6	24.8	19.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)