

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: P143929

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P143929
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33698)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-5WQ-E02-E-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5599.9 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G1

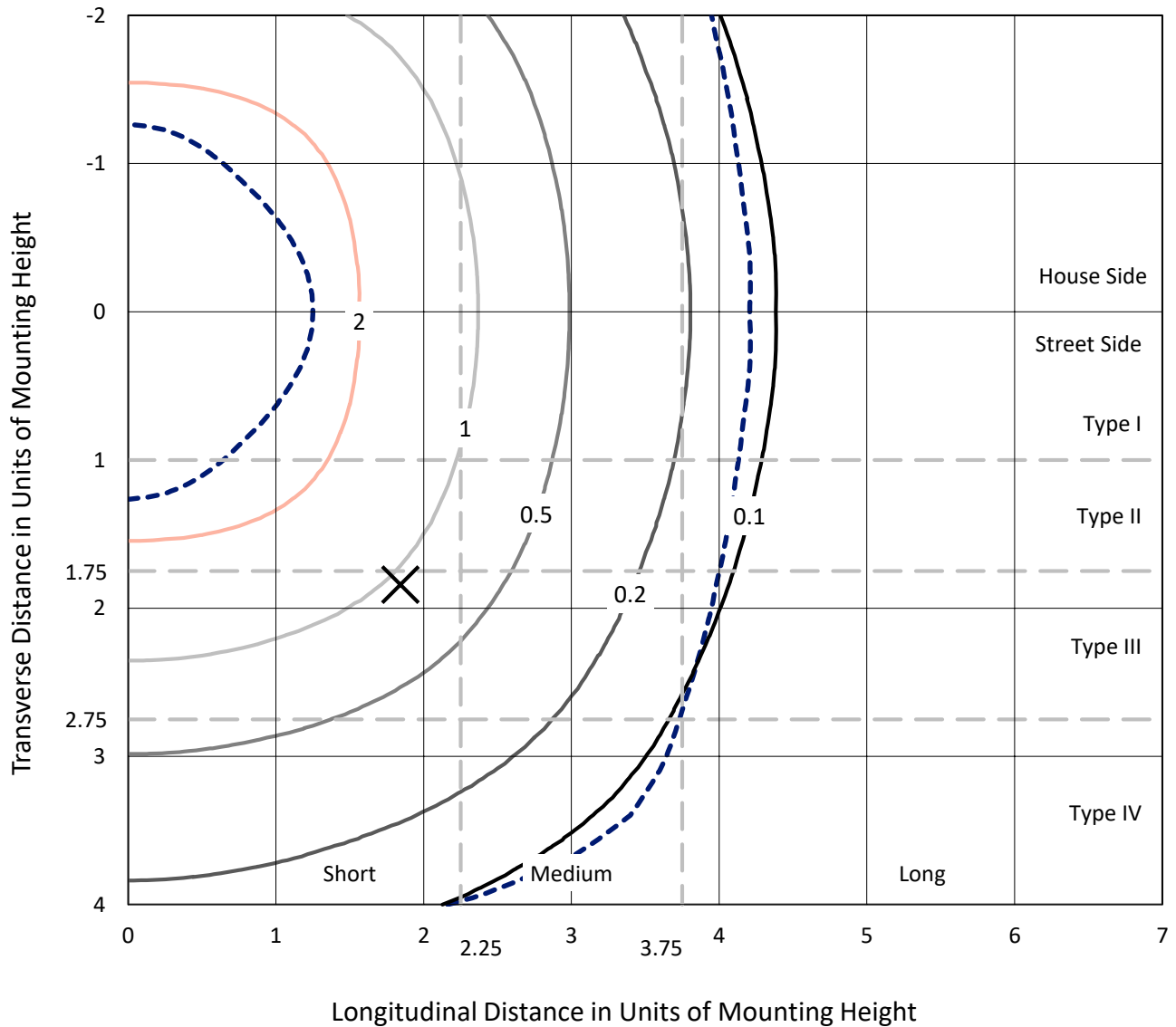
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

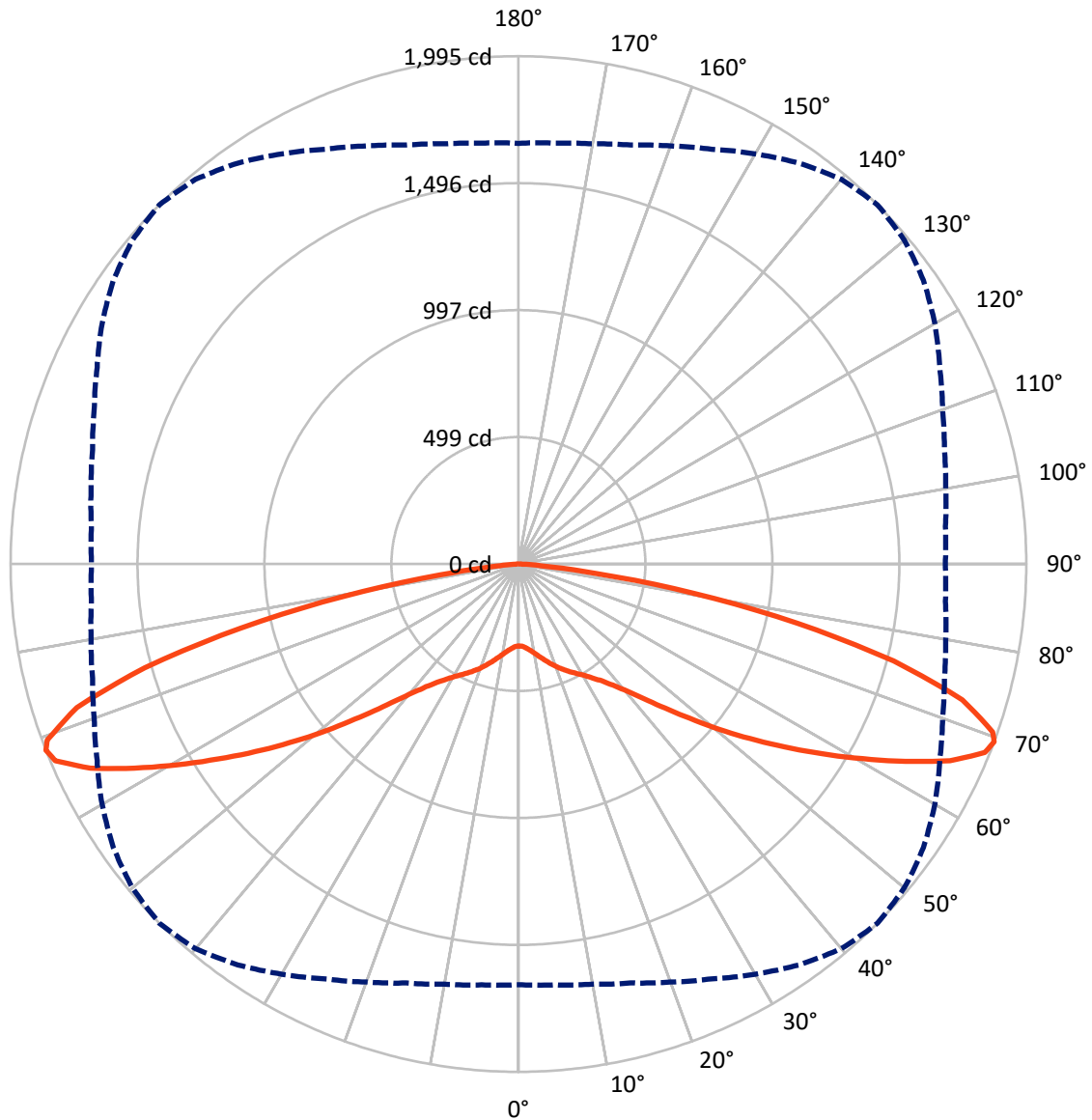
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.6 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2799.9	0.0	2799.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2799.9	0.0	2799.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	5599.9	0.0	5599.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.5	0.6
10°-20°	111.9	2.0
20°-30°	215.7	3.9
30°-40°	353.5	6.3
40°-50°	614.6	11.0
50°-60°	1091.8	19.5
60°-70°	1695.1	30.3
70°-80°	1350.5	24.1
80°-90°	134.3	2.4
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°	5599.9	100.0
0°-180°	5599.9	100.0



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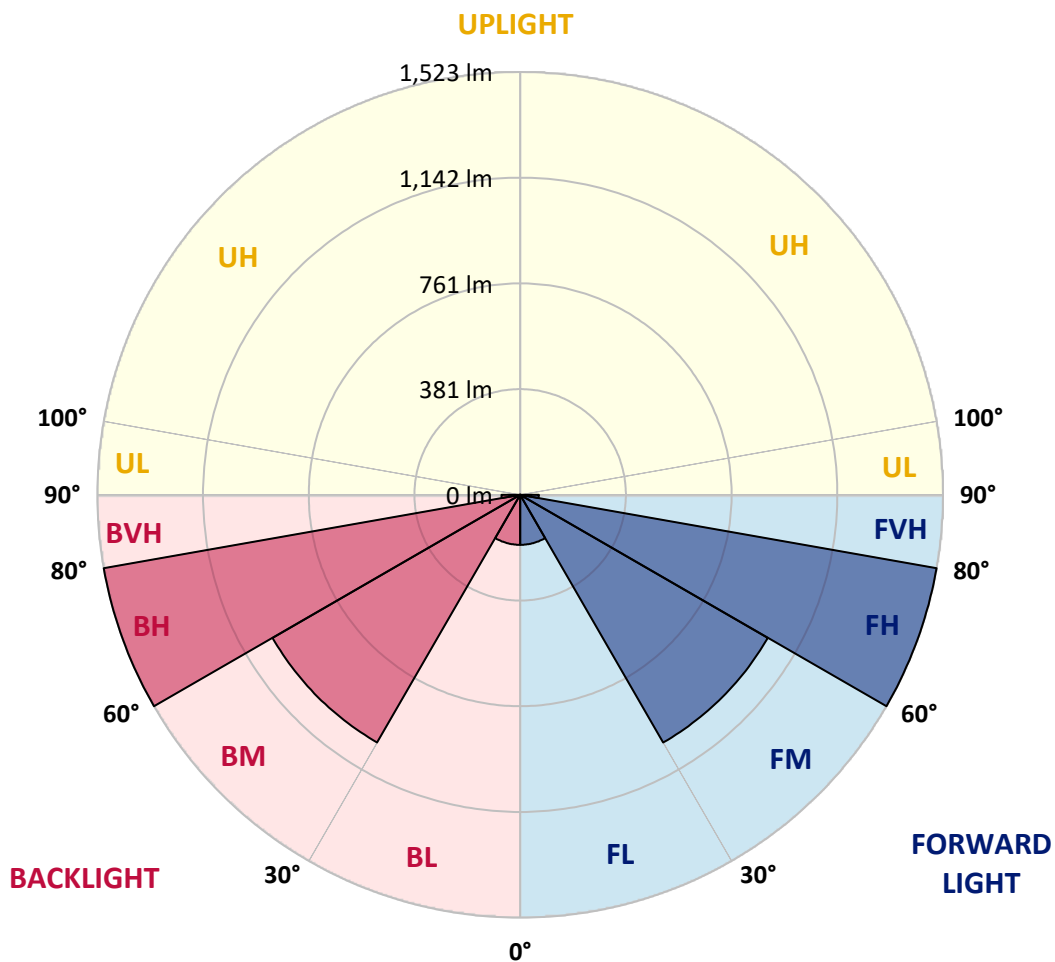
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	180.0	3.2			
FM	(30°-60°)	1029.9	18.4			
FH	(60°-80°)	1522.8	27.2			G1/1800
FVH	(80°-90°)	67.1	1.2			G1/100
BL	(0°-30°)	180.0	3.2	B1/500		
BM	(30°-60°)	1029.9	18.4	B2/2500		
BH	(60°-80°)	1522.8	27.2	B3/2500		G1/1800
BVH	(80°-90°)	67.1	1.2			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°	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9
2.5°	324.4	324.4	324.4	324.1	324.1	323.7	324.1	323.7	323.7	323.7	323.7
5°	332.8	332.1	332.1	331.7	332.5	332.5	331.7	332.1	331.7	332.1	332.1
7.5°	343.4	343.4	343.4	343.1	343.8	343.4	343.1	343.4	343.4	343.1	343.1
10°	356.6	356.9	356.6	356.6	357.7	357.3	357.7	357.7	358.0	357.7	357.7
12.5°	371.9	371.9	372.3	372.6	373.0	373.4	374.5	374.1	374.8	374.1	374.1
15°	389.8	390.5	389.8	389.8	390.9	391.6	392.0	392.0	392.7	392.4	391.6
17.5°	408.8	409.2	408.8	408.5	409.5	410.6	411.0	411.0	412.1	411.4	411.4
20°	428.2	428.5	427.8	427.4	428.9	428.9	429.6	430.0	431.1	431.5	430.4
22.5°	446.1	446.4	446.1	445.7	447.2	447.2	448.3	448.6	450.1	449.7	449.7
25°	463.6	463.6	463.3	463.3	464.7	465.1	466.2	466.9	468.4	468.4	468.4
27.5°	479.7	480.1	479.3	479.0	481.9	483.0	483.7	485.2	486.3	487.0	486.6
30°	498.0	498.0	497.6	498.7	500.5	502.0	503.4	505.6	507.8	507.1	507.1
32.5°	519.5	520.2	519.9	521.3	523.5	525.7	527.6	530.1	531.2	533.0	531.6
35°	548.4	549.8	549.1	550.6	552.4	553.9	557.9	560.4	562.3	563.4	562.6
37.5°	584.5	583.8	585.3	585.6	589.3	591.1	595.9	599.5	602.4	603.5	602.8
40°	629.5	628.4	630.2	632.0	636.8	638.6	644.1	649.6	653.6	655.1	654.3
42.5°	683.2	684.6	687.6	690.1	696.7	701.8	708.0	716.1	720.5	722.3	719.7
45°	753.7	751.1	756.6	763.2	766.8	778.2	788.4	796.8	804.1	807.0	804.1
47.5°	834.1	833.7	840.3	848.3	857.8	868.4	880.5	891.4	904.2	904.9	901.3
50°	922.8	930.2	933.8	941.8	959.4	972.5	987.9	1004.3	1016.0	1019.7	1013.1
52.5°	1029.9	1035.4	1037.6	1051.1	1067.2	1083.2	1104.8	1124.5	1138.0	1139.5	1136.2
55°	1146.1	1150.5	1154.5	1170.9	1188.5	1202.7	1230.1	1249.5	1263.0	1268.1	1265.9
57.5°	1266.3	1270.3	1275.4	1293.3	1311.2	1331.3	1357.2	1379.9	1395.6	1405.1	1402.5
60°	1399.6	1399.6	1411.3	1429.2	1443.8	1467.6	1494.6	1520.9	1538.1	1553.1	1549.0
62.5°	1539.9	1543.9	1555.3	1569.9	1585.2	1607.1	1637.8	1669.2	1695.5	1706.9	1706.5
65°	1646.2	1653.5	1668.5	1685.3	1710.9	1736.8	1775.6	1814.6	1846.4	1862.9	1862.9
67.5°	1677.3	1682.0	1700.7	1726.2	1763.1	1804.4	1857.0	1911.5	1954.9	1976.5	1963.0
69°	1652.4	1659.4	1675.8	1703.6	1747.4	1797.8	1860.3	1922.1	1972.5	1994.8	1979.0
70°	1623.6	1631.2	1647.7	1675.1	1720.4	1774.1	1836.6	1903.1	1957.1	1976.1	1958.2
72.5°	1505.9	1515.4	1527.1	1550.9	1591.8	1642.2	1698.5	1756.9	1808.8	1823.8	1801.5
75°	1305.4	1307.2	1313.0	1330.6	1345.2	1381.0	1428.8	1475.2	1514.3	1523.1	1499.4
77.5°	923.9	914.1	904.2	919.2	930.9	976.9	1028.8	1066.8	1107.7	1120.1	1096.0
80°	405.2	401.5	415.4	435.1	486.6	517.3	568.1	622.5	657.2	697.8	654.3
82.5°	80.0	84.4	97.5	120.6	148.7	187.1	220.3	257.9	291.9	307.3	291.5
85°	32.5	35.4	40.2	44.9	48.2	54.1	63.6	78.9	87.0	88.0	83.7
87.5°	13.5	15.7	21.2	25.2	25.6	24.5	25.2	25.9	21.2	17.2	21.6
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°	321.9	321.9	321.9	321.9	321.9	321.9	321.9	321.9
2.5°	323.7	324.1	323.7	324.1	323.7	323.7	324.1	323.7
5°	331.7	332.1	331.7	331.4	331.0	331.4	331.4	331.4
7.5°	343.1	342.7	342.3	342.3	342.0	341.6	342.3	342.3
10°	356.9	356.6	355.8	355.8	355.5	355.5	355.5	355.5
12.5°	373.7	372.6	372.3	371.2	370.8	370.5	370.5	370.8
15°	391.3	390.2	389.8	388.0	388.0	387.6	387.6	387.6
17.5°	409.9	408.8	407.4	407.4	406.3	405.5	405.9	405.2
20°	428.9	427.4	426.7	426.4	424.9	424.9	424.9	424.5
22.5°	447.5	446.4	445.3	443.9	442.4	442.1	442.1	441.7
25°	466.5	464.7	462.5	461.1	459.6	458.5	458.5	458.5
27.5°	485.5	483.3	480.1	478.2	476.0	474.9	474.9	474.6
30°	505.6	503.1	500.2	497.6	494.7	493.6	493.2	492.5
32.5°	529.7	527.2	524.3	520.6	517.7	515.9	515.9	514.8
35°	560.4	557.5	555.3	550.6	546.9	544.0	544.4	545.1
37.5°	600.6	597.0	595.1	589.3	584.5	581.6	581.6	581.3
40°	651.8	648.1	644.1	638.6	632.8	628.8	627.7	627.7
42.5°	716.8	713.5	708.0	700.4	693.4	689.0	685.4	685.7
45°	798.3	794.2	786.6	777.1	768.7	762.5	757.4	757.4
47.5°	897.3	888.9	878.3	869.9	855.6	846.1	842.5	841.7
50°	1010.2	994.5	981.3	969.2	954.3	944.4	938.9	937.5
52.5°	1128.5	1112.1	1095.7	1079.9	1061.7	1051.4	1042.7	1042.0
55°	1257.1	1236.3	1215.5	1200.1	1178.6	1168.0	1159.2	1154.1
57.5°	1388.3	1364.9	1349.9	1328.0	1305.4	1297.7	1289.3	1283.1
60°	1535.9	1510.3	1490.6	1467.6	1453.0	1436.5	1428.5	1423.7
62.5°	1686.8	1663.0	1637.8	1615.9	1595.4	1584.1	1573.2	1567.7
65°	1840.2	1801.1	1771.2	1740.8	1716.7	1696.3	1679.1	1676.9
67.5°	1934.5	1885.2	1835.1	1790.9	1755.5	1726.6	1709.1	1702.9
69°	1942.1	1888.4	1826.0	1773.0	1732.1	1704.3	1683.5	1676.9
70°	1921.0	1866.9	1801.1	1744.1	1701.8	1671.4	1654.3	1643.3
72.5°	1766.1	1718.6	1655.4	1599.1	1560.7	1525.3	1508.1	1503.7
75°	1457.0	1406.6	1348.5	1321.4	1294.8	1272.5	1260.8	1259.7
77.5°	1034.6	983.1	938.9	903.5	874.6	860.4	863.7	851.6
80°	592.2	525.0	471.7	440.2	397.5	371.9	343.1	363.9
82.5°	254.6	205.7	156.7	127.5	97.2	77.1	63.6	59.2
85°	71.2	58.1	48.6	44.6	40.2	35.8	30.3	28.1
87.5°	24.1	23.0	20.5	20.5	18.6	15.7	11.0	9.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)