

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: P143643

Luminaire Tested: **LDRL-5MQ-F03-E-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143643  
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-F03-E-8030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE MEDIUM  
Light Source: (21) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6495.7 lumens  
Efficiency: N/A  
Efficacy: 83.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G1

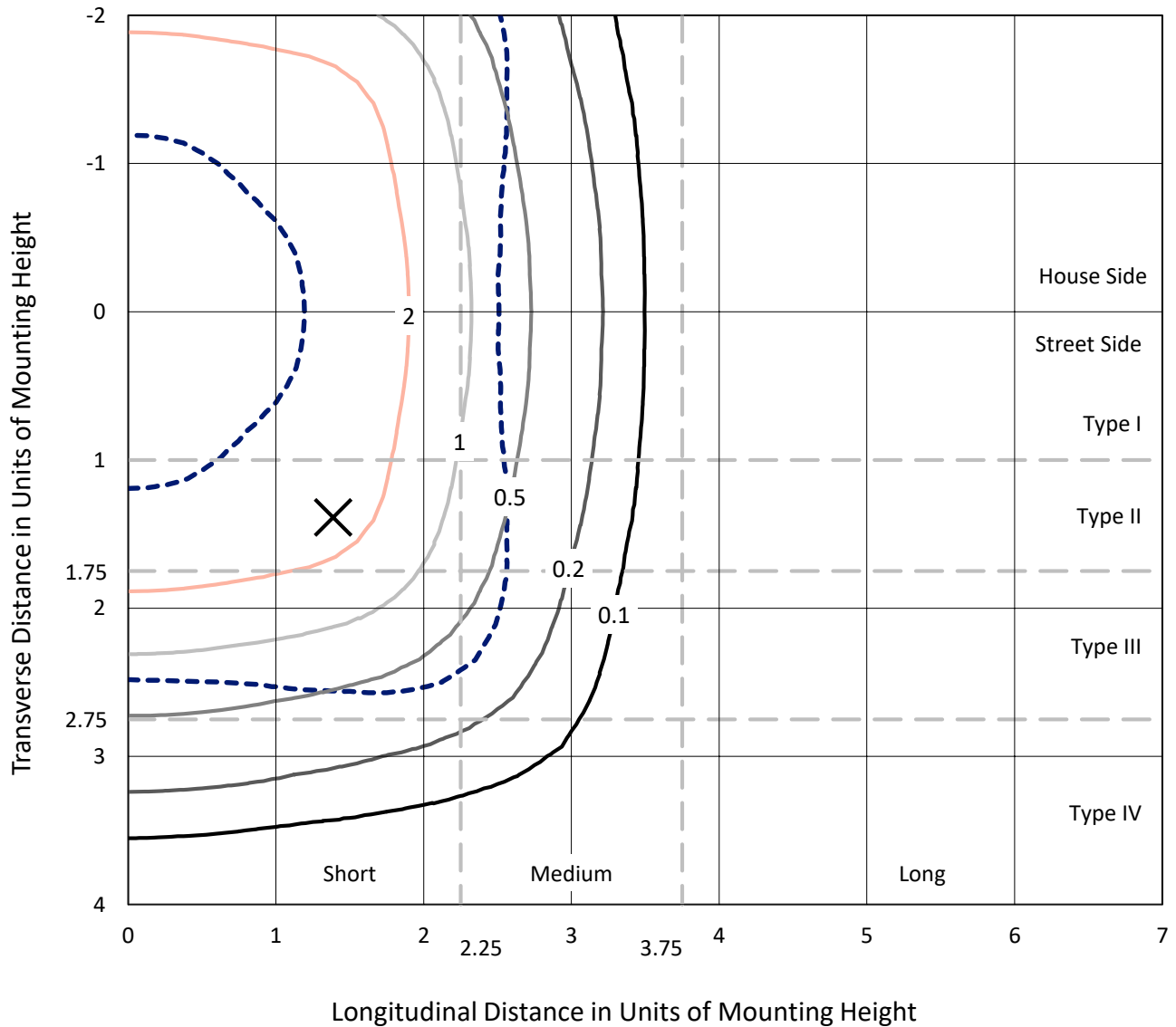
Input Watts (W): 78.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

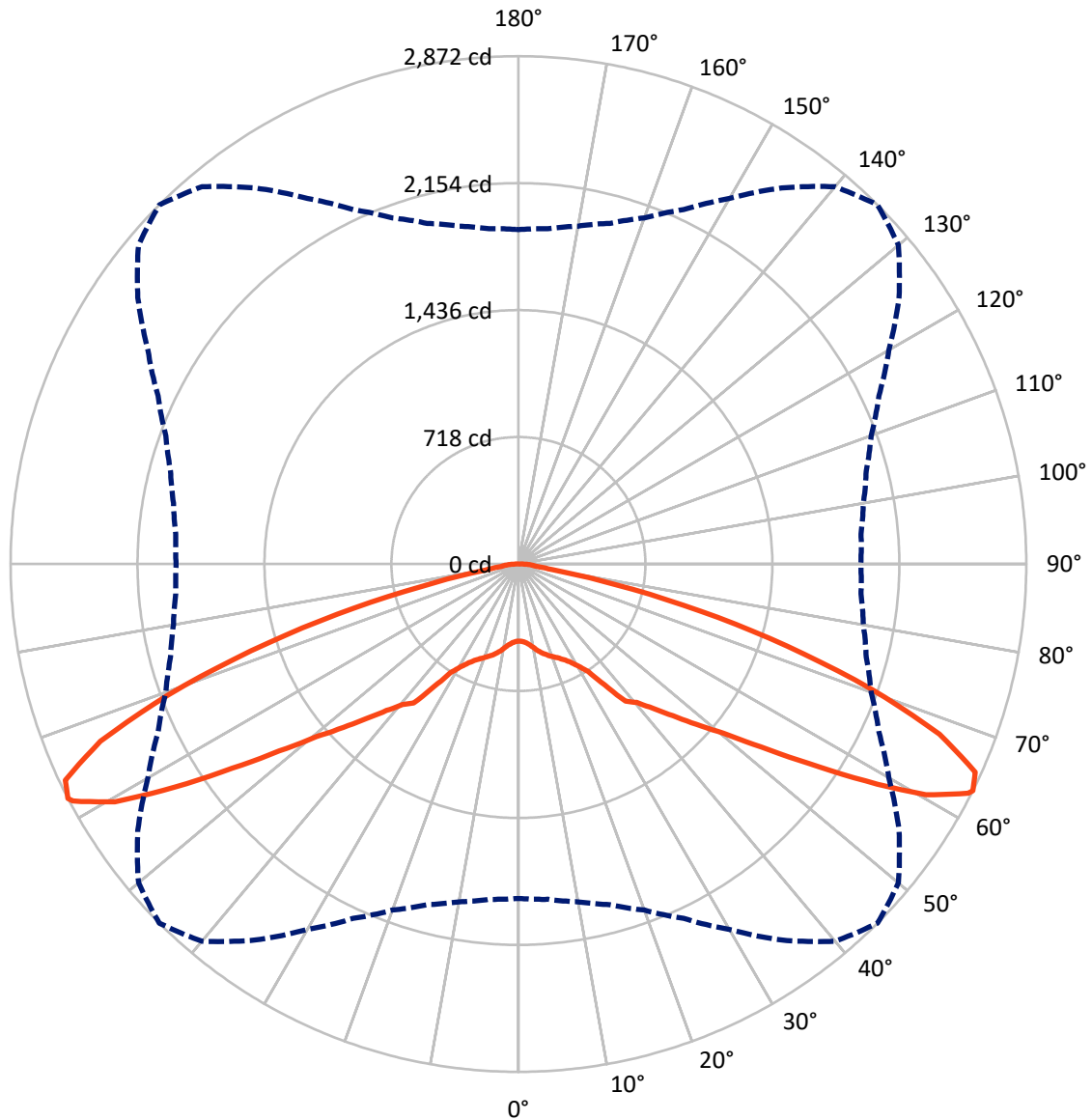
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 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
<b>House Side</b>	Lumens	3247.8	0.0	3247.8
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3247.8	0.0	3247.8
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	6495.7	0.0	6495.7
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.9	0.7
10°-20°	150.0	2.3
20°-30°	286.4	4.4
30°-40°	545.7	8.4
40°-50°	939.6	14.5
50°-60°	1679.1	25.8
60°-70°	2045.2	31.5
70°-80°	728.5	11.2
80°-90°	77.2	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°	6495.7	100.0
0°-180°	6495.7	100.0



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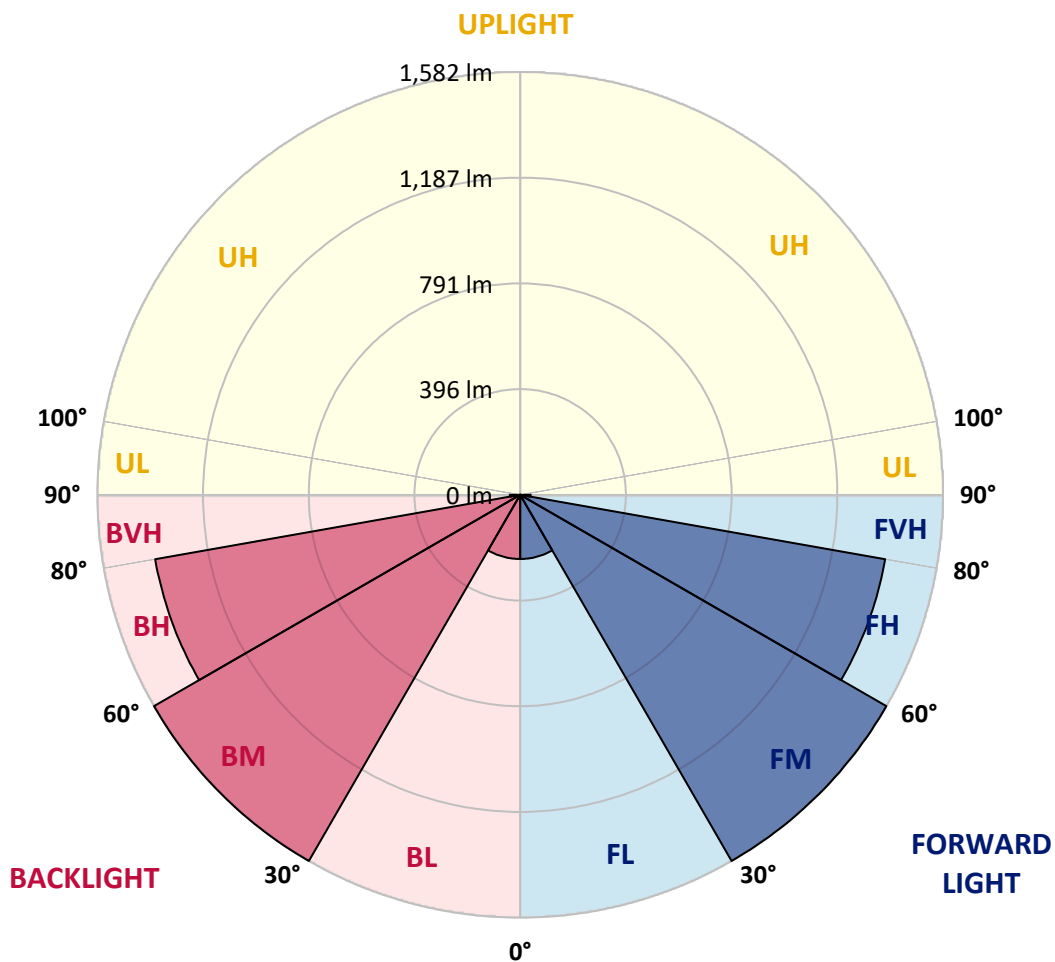
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	240.1	3.7			
FM	(30°-60°)	1582.2	24.4			
FH	(60°-80°)	1386.9	21.4			G1/1800
FVH	(80°-90°)	38.6	0.6			G1/100
BL	(0°-30°)	240.1	3.7	B1/500		
BM	(30°-60°)	1582.2	24.4	B2/2500		
BH	(60°-80°)	1386.9	21.4	B3/2500		G1/1800
BVH	(80°-90°)	38.6	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°	436.0	436.0	436.0	436.0	436.0	436.0	436.0	436.0	436.0	436.0	436.0
2.5°	439.4	438.9	439.4	438.5	438.5	438.1	438.1	438.1	437.3	438.1	437.3
5°	448.6	448.1	448.6	447.7	447.7	446.9	446.9	446.9	446.1	446.9	446.5
7.5°	464.4	465.3	464.4	463.6	463.6	462.8	462.4	462.4	461.9	461.5	462.4
10°	486.6	487.4	486.2	485.3	484.9	484.5	483.7	483.3	483.3	481.6	482.0
12.5°	510.0	510.0	508.8	508.3	508.3	507.5	505.8	505.4	505.4	504.6	503.7
15°	530.9	530.9	530.1	528.4	528.8	527.6	526.3	525.5	525.5	524.6	523.8
17.5°	550.1	550.1	548.9	547.2	546.4	546.0	544.3	543.5	543.5	542.6	541.8
20°	569.4	570.2	568.1	566.4	564.8	563.1	561.4	560.6	559.3	559.8	559.3
22.5°	592.4	592.8	589.4	587.3	584.0	581.9	579.4	578.6	576.9	576.9	577.7
25°	621.6	621.2	617.4	613.7	609.9	605.7	602.0	601.1	599.5	599.1	599.5
27.5°	660.1	659.7	655.1	650.1	645.0	638.8	634.2	631.7	630.4	628.7	629.6
30°	707.3	708.2	702.7	696.9	690.6	683.1	677.2	673.9	671.4	669.7	670.5
32.5°	803.5	802.6	794.3	781.7	768.4	750.8	736.6	730.7	726.1	724.5	725.7
35°	900.0	899.2	895.9	892.1	888.8	877.5	867.0	854.9	844.9	838.6	840.3
37.5°	945.6	945.6	943.1	942.3	942.3	949.0	957.3	972.4	984.1	984.9	981.1
40°	1016.7	1016.7	1012.5	1010.4	1009.2	1011.2	1016.7	1022.1	1028.0	1029.2	1025.0
42.5°	1100.3	1096.5	1093.6	1089.4	1089.0	1091.1	1096.9	1103.6	1109.5	1114.5	1105.7
45°	1190.6	1187.2	1184.3	1181.8	1183.5	1188.9	1196.9	1208.6	1216.9	1224.4	1217.3
47.5°	1291.3	1284.2	1287.1	1284.6	1288.8	1299.7	1313.9	1331.5	1340.2	1353.6	1342.3
50°	1416.7	1418.4	1416.7	1416.7	1421.8	1436.0	1456.9	1480.7	1495.8	1503.3	1496.6
52.5°	1603.2	1598.2	1586.9	1590.2	1596.9	1619.5	1646.7	1680.1	1699.3	1717.3	1696.4
55°	1807.2	1808.0	1806.4	1811.0	1823.9	1846.9	1881.2	1931.8	1956.0	1987.4	1962.3
57.5°	1976.1	1981.9	1992.0	2005.8	2033.8	2072.2	2139.5	2216.9	2281.3	2315.1	2275.8
60°	2030.8	2036.7	2060.9	2099.4	2152.1	2230.7	2339.8	2472.3	2588.1	2648.3	2596.9
62.5°	1925.5	1936.4	1972.3	2025.4	2112.4	2235.3	2397.5	2593.5	2772.0	2854.4	2792.1
63°	1891.2	1903.3	1940.1	1994.1	2082.7	2211.0	2386.2	2596.0	2785.0	2871.9	2804.6
65°	1739.1	1747.0	1785.9	1847.3	1946.0	2079.8	2274.6	2522.9	2738.2	2838.9	2767.4
67.5°	1499.5	1510.0	1545.5	1598.6	1694.3	1836.0	2027.5	2275.0	2486.9	2567.6	2506.6
70°	1202.7	1214.4	1243.7	1293.0	1368.2	1499.5	1663.4	1894.6	2053.8	2117.0	2051.7
72.5°	845.3	850.3	871.6	923.5	979.9	1084.4	1214.4	1394.2	1547.2	1588.6	1525.9
75°	357.8	358.3	386.3	419.3	489.9	594.0	707.3	862.0	999.5	1063.9	984.5
77.5°	114.5	115.8	123.7	135.9	159.3	205.7	289.3	374.1	500.4	561.4	487.0
80°	95.7	97.4	100.7	103.3	104.9	107.4	117.1	130.4	164.3	191.0	154.3
82.5°	82.4	85.3	92.8	95.7	97.4	98.2	99.5	99.1	97.0	96.1	96.6
85°	62.7	69.8	78.2	84.9	85.7	86.1	88.6	89.5	82.8	76.1	82.8
87.5°	27.2	35.1	53.9	59.8	58.5	54.3	58.1	61.5	56.0	41.0	54.8
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°	436.0	436.0	436.0	436.0	436.0	436.0	436.0	436.0
2.5°	437.7	438.5	438.5	438.5	438.5	438.9	439.4	438.9
5°	446.9	447.7	447.3	447.7	447.7	448.1	448.6	448.1
7.5°	462.8	462.8	462.8	463.6	463.6	464.4	464.4	464.4
10°	482.4	482.0	482.0	482.8	483.7	484.1	484.9	484.5
12.5°	503.7	502.9	503.3	504.2	505.0	505.4	506.2	505.8
15°	523.0	522.6	522.6	523.8	524.2	524.6	526.3	526.3
17.5°	541.4	541.4	541.4	543.0	543.5	545.1	546.4	546.4
20°	559.8	559.8	559.8	561.4	562.7	565.2	567.7	567.3
22.5°	578.6	579.0	579.8	581.5	584.4	588.2	590.3	590.3
25°	602.0	603.7	605.3	607.8	612.0	617.0	620.4	621.6
27.5°	632.1	635.8	640.0	643.8	648.4	654.7	659.3	660.1
30°	673.0	678.5	685.2	690.2	696.0	703.1	708.6	711.5
32.5°	731.2	744.5	753.3	771.3	782.2	794.3	804.3	808.5
35°	850.7	864.1	875.8	887.9	890.4	894.6	900.0	901.3
37.5°	969.0	958.2	947.7	947.3	944.4	945.2	946.9	949.0
40°	1020.4	1017.1	1011.7	1013.8	1014.2	1014.2	1017.5	1017.9
42.5°	1103.2	1095.3	1089.0	1094.0	1094.9	1095.7	1099.0	1102.8
45°	1208.6	1196.4	1188.5	1185.6	1188.5	1187.7	1192.3	1193.1
47.5°	1329.0	1313.1	1295.1	1289.2	1287.6	1283.8	1291.7	1290.9
50°	1476.5	1451.0	1429.3	1420.9	1416.7	1414.7	1416.7	1416.7
52.5°	1663.4	1637.9	1608.2	1598.6	1595.2	1599.8	1593.2	1600.3
55°	1920.5	1879.1	1838.5	1825.6	1823.5	1821.4	1822.2	1825.2
57.5°	2209.8	2136.2	2081.8	2050.1	2029.6	2019.6	2008.7	2007.0
60°	2489.0	2355.2	2252.0	2181.8	2132.0	2094.4	2075.2	2068.5
62.5°	2623.6	2428.0	2267.5	2147.9	2073.9	2012.5	1978.6	1969.8
63°	2627.4	2418.8	2248.6	2122.4	2036.3	1981.1	1945.1	1935.9
65°	2557.6	2320.1	2120.7	1981.9	1890.8	1833.1	1788.8	1779.2
67.5°	2303.4	2073.1	1869.1	1728.2	1629.5	1583.1	1534.2	1533.0
70°	1890.4	1684.7	1512.9	1383.3	1300.9	1255.0	1205.2	1206.5
72.5°	1382.0	1199.4	1081.1	979.9	892.9	849.5	802.6	807.2
75°	831.9	668.9	562.3	474.5	385.0	331.5	295.6	275.1
77.5°	355.8	243.3	174.7	138.8	117.1	108.3	104.1	102.8
80°	123.7	109.5	103.3	101.6	100.3	98.7	95.7	92.8
82.5°	100.3	100.3	97.0	96.6	92.8	89.9	82.4	78.6
85°	89.0	87.4	84.4	83.2	82.4	76.1	66.5	61.5
87.5°	58.9	54.8	52.3	53.5	51.8	46.4	28.4	22.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)