

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: P143918

Luminaire Tested: **LDRL-5WQ-E01-E-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P143918  
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-E01-E-8030  
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (21) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2587.3 lumens  
Efficiency: N/A  
Efficacy: 104.7 lumens/watt  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G1

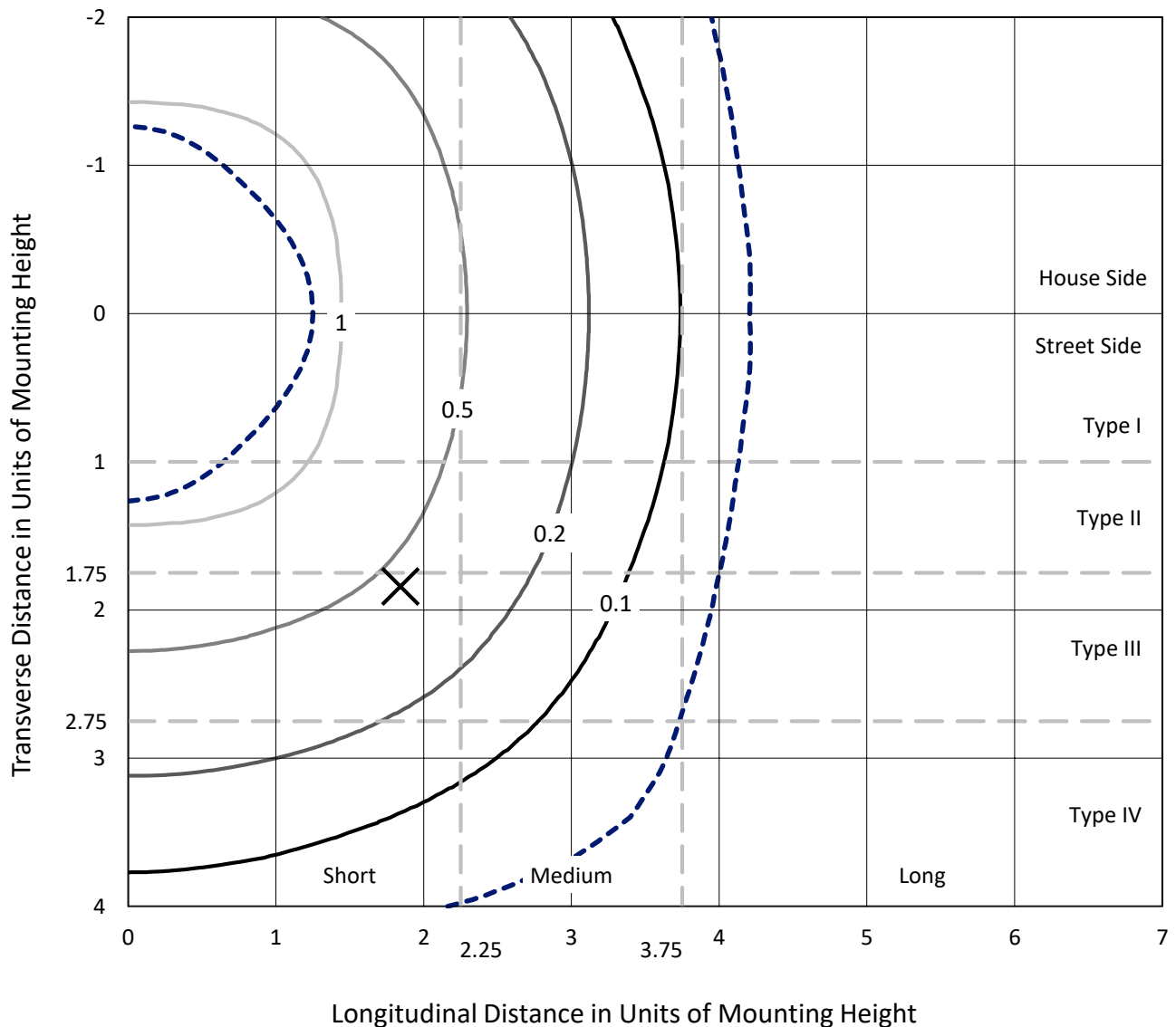
Input Watts (W): 24.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

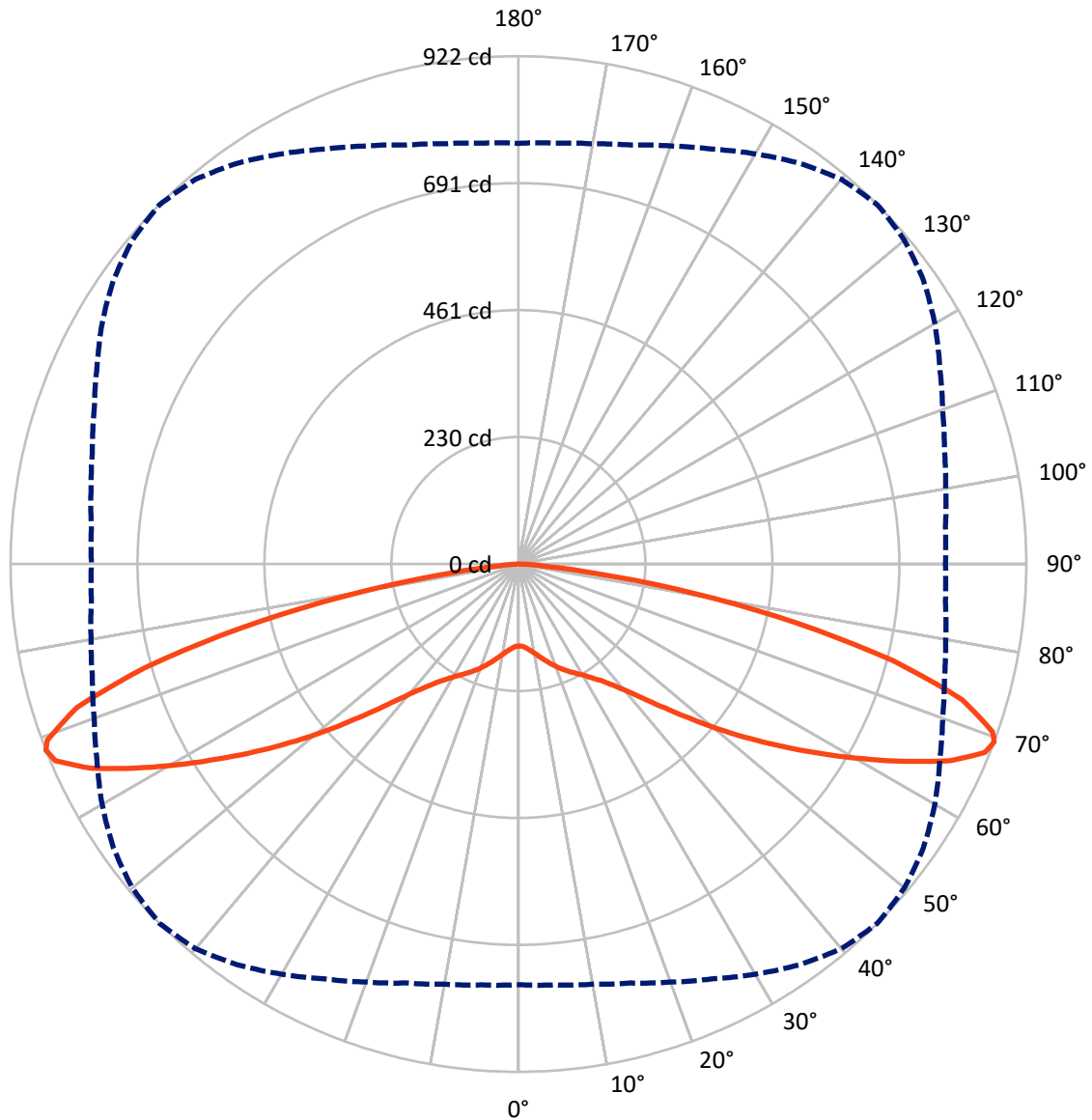
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.7 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
<b>House Side</b>	Lumens	1293.6	0.0	1293.6
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	1293.6	0.0	1293.6
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	2587.3	0.0	2587.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	15.0	0.6
10°-20°	51.7	2.0
20°-30°	99.7	3.9
30°-40°	163.3	6.3
40°-50°	284.0	11.0
50°-60°	504.4	19.5
60°-70°	783.2	30.3
70°-80°	624.0	24.1
80°-90°	62.1	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°	2587.3	100.0
0°-180°	2587.3	100.0



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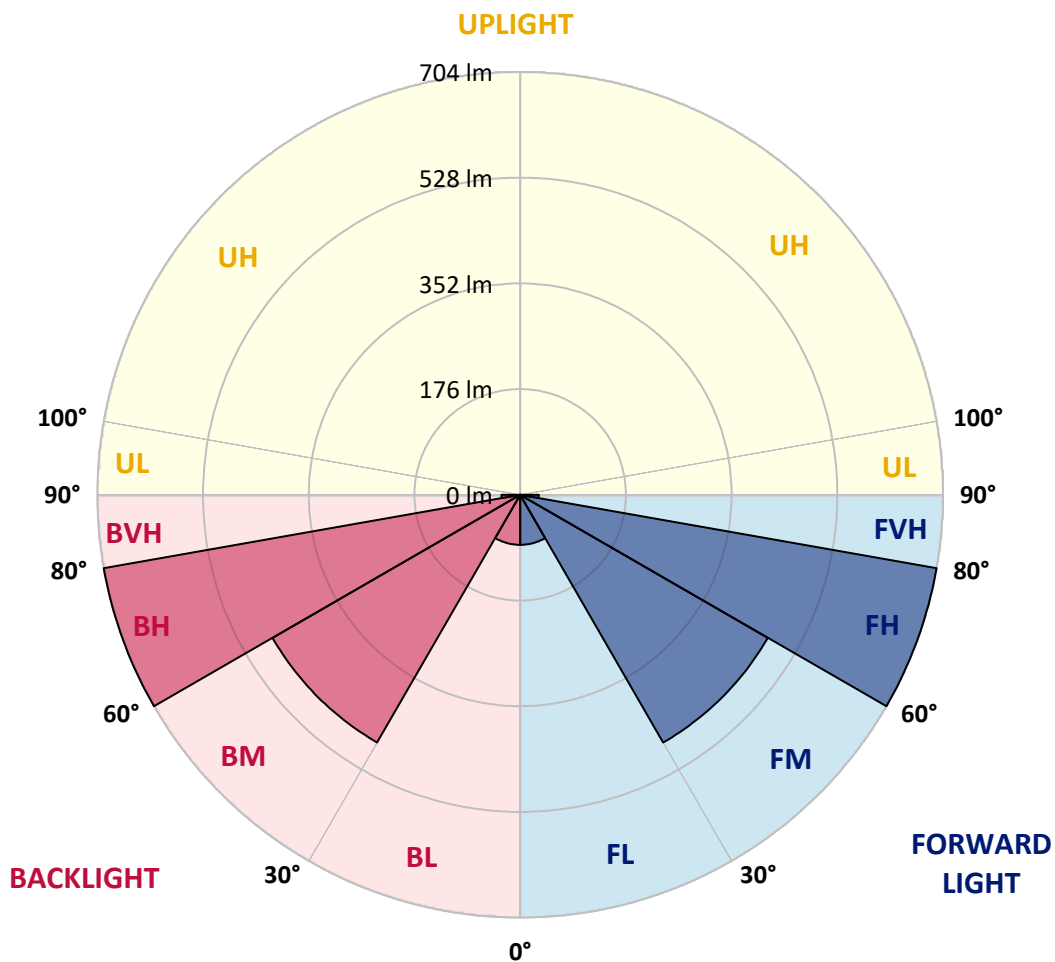
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	83.2	3.2			
FM (30°-60°)	475.9	18.4			
FH (60°-80°)	703.6	27.2			G1/1800
FVH (80°-90°)	31.0	1.2			G1/100
BL (0°-30°)	83.2	3.2	B0/110		
BM (30°-60°)	475.9	18.4	B1/1000		
BH (60°-80°)	703.6	27.2	B2/1000		G1/1800
BVH (80°-90°)	31.0	1.2			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°	148.7	148.7	148.7	148.7	148.7	148.7	148.7	148.7	148.7	148.7	148.7
2.5°	149.9	149.9	149.9	149.7	149.7	149.6	149.7	149.6	149.6	149.6	149.6
5°	153.8	153.4	153.4	153.3	153.6	153.6	153.3	153.4	153.3	153.4	153.4
7.5°	158.7	158.7	158.7	158.5	158.8	158.7	158.5	158.7	158.7	158.5	158.5
10°	164.7	164.9	164.7	164.7	165.3	165.1	165.3	165.3	165.4	165.3	165.3
12.5°	171.8	171.8	172.0	172.2	172.3	172.5	173.0	172.8	173.2	172.8	172.8
15°	180.1	180.4	180.1	180.1	180.6	181.0	181.1	181.1	181.5	181.3	181.0
17.5°	188.9	189.1	188.9	188.7	189.2	189.7	189.9	189.9	190.4	190.1	190.1
20°	197.8	198.0	197.7	197.5	198.2	198.2	198.5	198.7	199.2	199.4	198.8
22.5°	206.1	206.3	206.1	205.9	206.6	206.6	207.1	207.3	208.0	207.8	207.8
25°	214.2	214.2	214.0	214.0	214.7	214.9	215.4	215.7	216.4	216.4	216.4
27.5°	221.6	221.8	221.5	221.3	222.6	223.2	223.5	224.2	224.7	225.0	224.8
30°	230.1	230.1	229.9	230.4	231.3	231.9	232.6	233.6	234.6	234.3	234.3
32.5°	240.0	240.4	240.2	240.9	241.9	242.9	243.7	244.9	245.4	246.3	245.6
35°	253.4	254.0	253.7	254.4	255.2	255.9	257.8	258.9	259.8	260.3	259.9
37.5°	270.1	269.7	270.4	270.6	272.3	273.1	275.3	277.0	278.3	278.9	278.5
40°	290.8	290.3	291.2	292.0	294.2	295.1	297.6	300.1	302.0	302.7	302.3
42.5°	315.7	316.3	317.7	318.9	321.9	324.3	327.1	330.8	332.9	333.7	332.5
45°	348.2	347.0	349.6	352.6	354.3	359.5	364.3	368.1	371.5	372.9	371.5
47.5°	385.4	385.2	388.2	391.9	396.3	401.2	406.8	411.9	417.8	418.1	416.4
50°	426.4	429.8	431.4	435.2	443.3	449.3	456.4	464.0	469.4	471.1	468.1
52.5°	475.8	478.4	479.4	485.6	493.1	500.5	510.4	519.6	525.8	526.5	525.0
55°	529.5	531.5	533.4	541.0	549.1	555.7	568.3	577.3	583.5	585.9	584.9
57.5°	585.1	586.9	589.3	597.5	605.8	615.1	627.1	637.6	644.8	649.2	648.0
60°	646.7	646.7	652.1	660.3	667.1	678.1	690.6	702.7	710.6	717.6	715.7
62.5°	711.5	713.3	718.6	725.3	732.4	742.5	756.7	771.2	783.4	788.6	788.5
65°	760.6	764.0	770.9	778.7	790.5	802.5	820.4	838.4	853.1	860.7	860.7
67.5°	775.0	777.1	785.8	797.6	814.6	833.7	858.0	883.2	903.2	913.2	907.0
69°	763.5	766.7	774.3	787.1	807.4	830.7	859.5	888.0	911.3	921.6	914.4
70°	750.1	753.7	761.3	773.9	794.9	819.7	848.5	879.3	904.3	913.0	904.8
72.5°	695.8	700.2	705.6	716.5	735.5	758.7	784.7	811.8	835.7	842.6	832.3
75°	603.1	604.0	606.7	614.8	621.5	638.1	660.2	681.6	699.7	703.7	692.7
77.5°	426.9	422.3	417.8	424.7	430.1	451.4	475.3	492.9	511.8	517.5	506.4
80°	187.2	185.5	191.9	201.0	224.8	239.0	262.5	287.6	303.7	322.4	302.3
82.5°	37.0	39.0	45.1	55.7	68.7	86.4	101.8	119.2	134.9	142.0	134.7
85°	15.0	16.4	18.6	20.8	22.3	25.0	29.4	36.5	40.2	40.7	38.7
87.5°	6.2	7.3	9.8	11.6	11.8	11.3	11.6	12.0	9.8	7.9	10.0
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°	148.7	148.7	148.7	148.7	148.7	148.7	148.7	148.7
2.5°	149.6	149.7	149.6	149.7	149.6	149.6	149.7	149.6
5°	153.3	153.4	153.3	153.1	152.9	153.1	153.1	153.1
7.5°	158.5	158.3	158.2	158.2	158.0	157.8	158.2	158.2
10°	164.9	164.7	164.4	164.4	164.2	164.2	164.2	164.2
12.5°	172.7	172.2	172.0	171.5	171.3	171.2	171.2	171.3
15°	180.8	180.3	180.1	179.3	179.3	179.1	179.1	179.1
17.5°	189.4	188.9	188.2	188.2	187.7	187.4	187.5	187.2
20°	198.2	197.5	197.2	197.0	196.3	196.3	196.3	196.1
22.5°	206.8	206.3	205.8	205.1	204.4	204.2	204.2	204.1
25°	215.6	214.7	213.7	213.0	212.3	211.8	211.8	211.8
27.5°	224.3	223.3	221.8	221.0	219.9	219.4	219.4	219.3
30°	233.6	232.4	231.1	229.9	228.6	228.0	227.9	227.5
32.5°	244.8	243.6	242.2	240.5	239.2	238.3	238.3	237.8
35°	258.9	257.6	256.6	254.4	252.7	251.3	251.5	251.8
37.5°	277.5	275.8	275.0	272.3	270.1	268.7	268.7	268.6
40°	301.1	299.4	297.6	295.1	292.4	290.5	290.0	290.0
42.5°	331.2	329.7	327.1	323.6	320.4	318.4	316.7	316.8
45°	368.8	367.0	363.4	359.0	355.2	352.3	349.9	349.9
47.5°	414.6	410.7	405.8	401.9	395.3	390.9	389.2	388.9
50°	466.7	459.5	453.4	447.8	440.9	436.3	433.8	433.1
52.5°	521.4	513.8	506.2	499.0	490.5	485.8	481.8	481.4
55°	580.8	571.2	561.6	554.5	544.5	539.6	535.6	533.2
57.5°	641.4	630.6	623.7	613.6	603.1	599.6	595.7	592.8
60°	709.6	697.8	688.7	678.1	671.3	663.7	660.0	657.8
62.5°	779.3	768.4	756.7	746.6	737.1	731.9	726.8	724.3
65°	850.2	832.2	818.3	804.3	793.2	783.7	775.8	774.8
67.5°	893.8	871.0	847.9	827.4	811.1	797.7	789.6	786.8
69°	897.3	872.5	843.7	819.2	800.3	787.4	777.8	774.8
70°	887.5	862.6	832.2	805.8	786.3	772.3	764.3	759.3
72.5°	816.0	794.0	764.8	738.8	721.1	704.7	696.8	694.8
75°	673.2	649.9	623.0	610.5	598.2	587.9	582.5	582.0
77.5°	478.0	454.2	433.8	417.4	404.1	397.5	399.0	393.5
80°	273.6	242.6	217.9	203.4	183.7	171.8	158.5	168.1
82.5°	117.7	95.0	72.4	58.9	44.9	35.6	29.4	27.3
85°	32.9	26.8	22.5	20.6	18.6	16.5	14.0	13.0
87.5°	11.1	10.6	9.5	9.5	8.6	7.3	5.1	4.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)