

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: P195481

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195481
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-5WQ-7050-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 615mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4188 lumens
Efficiency: N/A
Efficacy: 123.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G1

Input Watts (W): 34
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

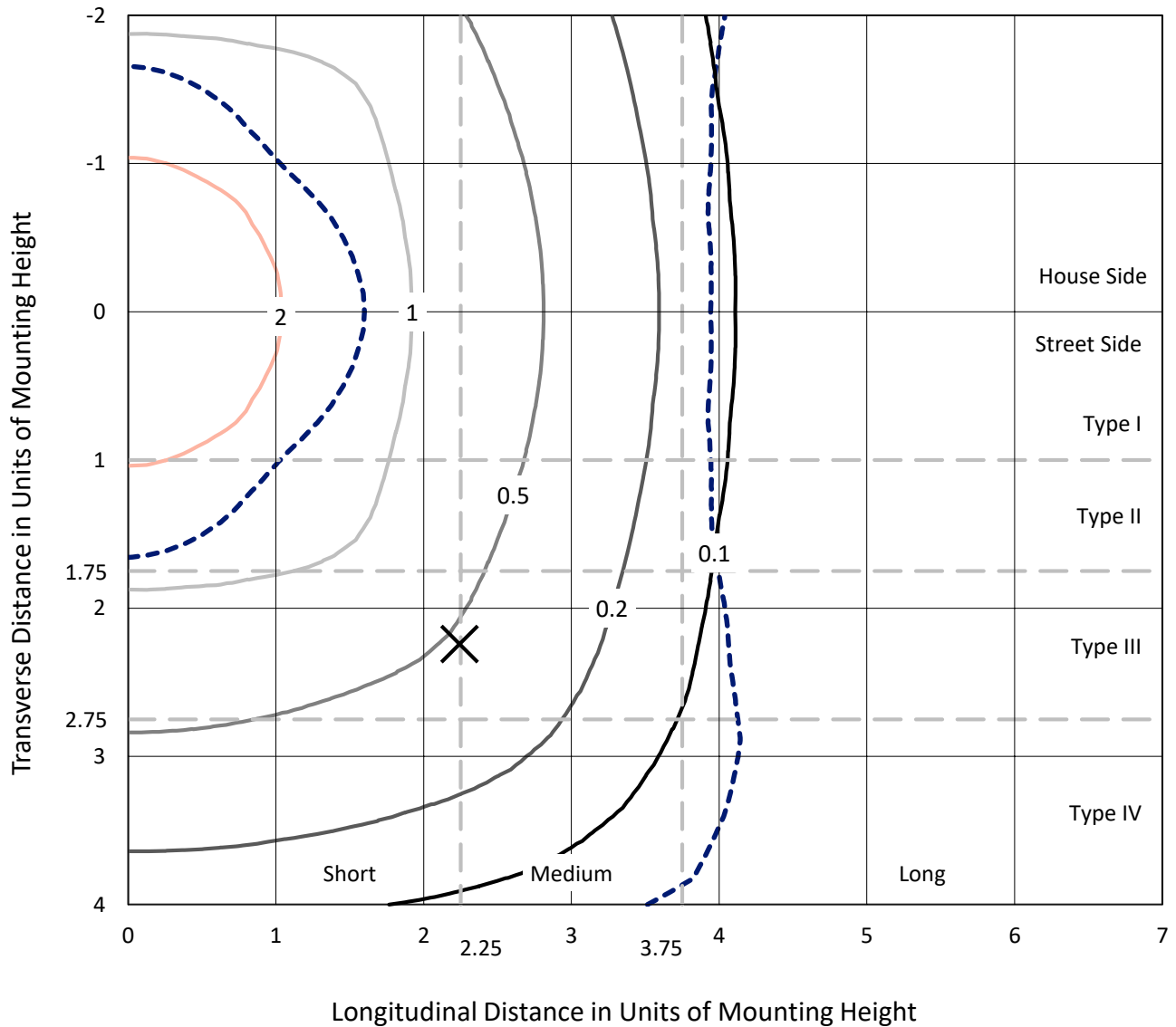


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Iso-Footcandle Lines of Horizontal Illumination

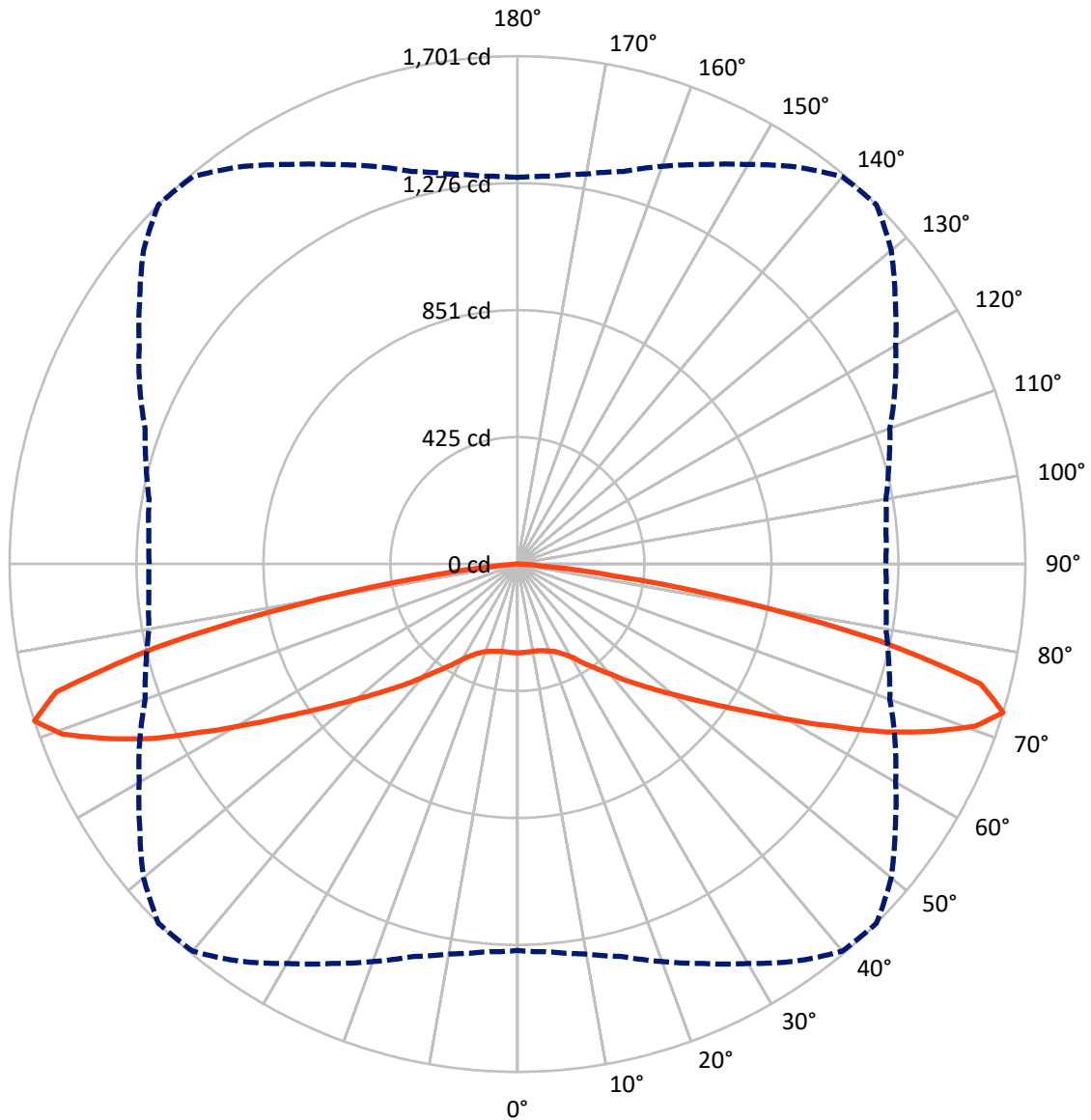
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2094.0	0.0	2094.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2094.0	0.0	2094.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	4188.0	0.0	4188.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.4	0.7
10°-20°	86.0	2.1
20°-30°	155.3	3.7
30°-40°	264.8	6.3
40°-50°	450.9	10.8
50°-60°	725.7	17.3
60°-70°	1206.8	28.8
70°-80°	1167.4	27.9
80°-90°	102.7	2.5
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°	4188.0	100.0
0°-180°	4188.0	100.0



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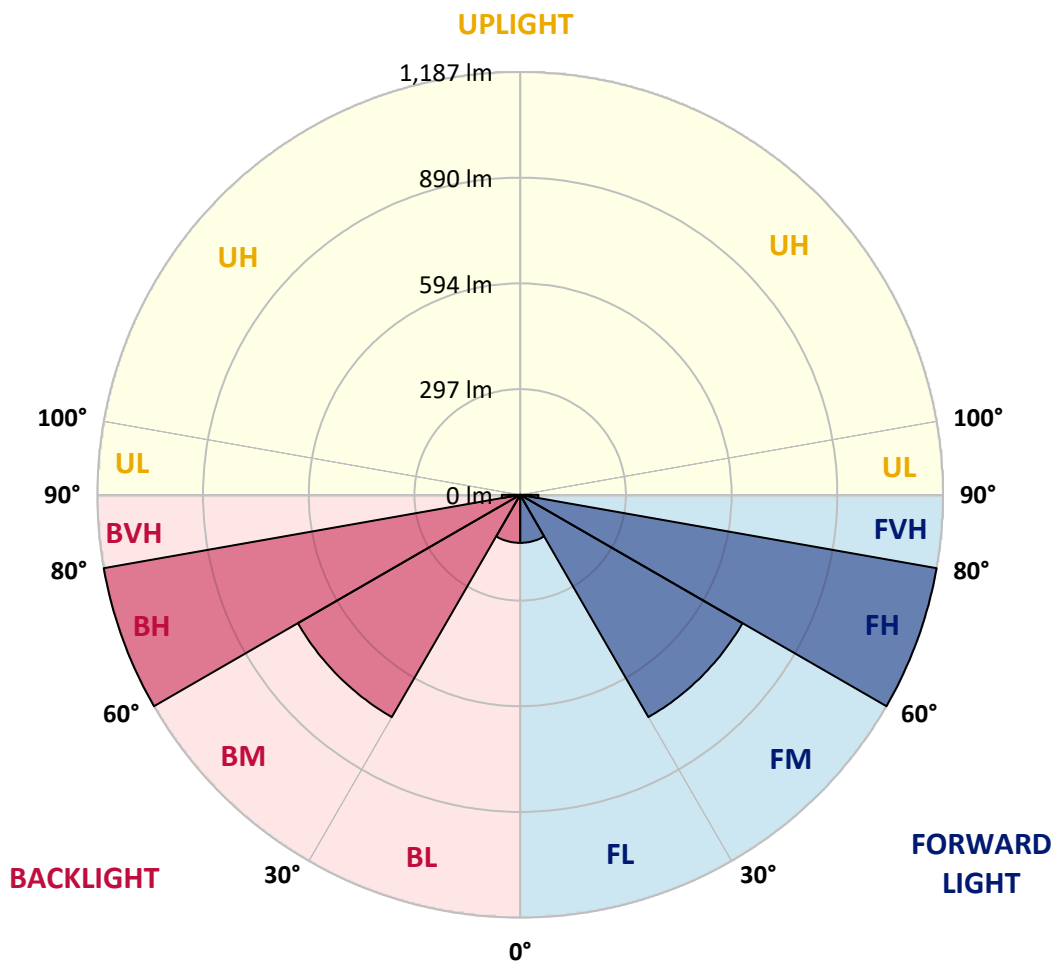
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	134.8	3.2			
FM (30°-60°)	720.7	17.2			
FH (60°-80°)	1187.1	28.3			G1/1800
FVH (80°-90°)	51.4	1.2			G1/100
BL (0°-30°)	134.8	3.2	B1/500		
BM (30°-60°)	720.7	17.2	B1/1000		
BH (60°-80°)	1187.1	28.3	B3/2500		G1/1800
BVH (80°-90°)	51.4	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°	297.7	297.7	297.7	297.7	297.7	297.7	297.7	297.7	297.7	297.7	297.7
2.5°	300.1	300.1	300.3	300.1	299.5	299.3	298.5	298.0	297.5	297.2	296.7
5°	300.3	300.3	300.6	300.3	299.8	299.3	298.8	298.0	297.5	297.0	296.7
7.5°	301.3	301.6	301.9	301.6	300.6	300.1	299.3	298.5	297.5	297.0	296.4
10°	303.4	303.4	303.4	303.1	302.4	301.3	300.3	299.5	298.3	297.0	296.2
12.5°	305.0	305.2	305.2	304.7	303.7	302.4	301.3	300.6	299.5	298.5	297.7
15°	307.3	307.3	307.0	306.0	304.4	303.4	302.9	302.6	302.4	301.9	301.1
17.5°	311.9	311.7	310.9	309.3	307.5	306.8	306.2	306.2	306.2	306.0	305.5
20°	318.6	318.6	317.6	315.0	313.5	312.7	311.9	311.9	311.9	311.1	310.4
22.5°	329.4	329.7	328.2	325.1	323.0	321.5	320.4	319.6	318.9	318.4	317.1
25°	344.1	343.9	342.1	338.2	336.7	335.1	333.1	331.8	330.7	330.0	328.4
27.5°	359.6	359.3	357.3	353.9	352.9	350.6	349.0	347.2	345.9	344.7	343.1
30°	379.5	378.2	376.6	374.0	373.5	371.7	369.7	367.1	365.0	363.0	361.1
32.5°	397.2	397.2	394.9	393.6	394.7	393.9	394.1	392.6	391.3	390.5	388.7
35°	422.0	422.0	421.0	419.4	419.7	417.9	417.6	417.9	418.9	418.9	416.8
37.5°	455.0	455.5	452.1	451.6	450.3	447.8	446.5	447.0	449.3	450.6	447.8
40°	496.0	497.0	496.0	492.6	491.1	486.7	484.1	484.1	485.9	487.2	486.2
42.5°	536.4	538.2	536.4	533.9	532.6	529.2	527.9	529.0	531.3	532.8	531.3
45°	581.6	582.8	580.5	577.4	575.9	574.1	573.3	574.1	576.7	578.2	577.7
47.5°	625.9	627.7	624.9	623.6	623.6	621.8	623.8	625.9	628.2	631.8	630.3
50°	669.2	671.5	669.7	670.0	672.0	675.4	679.2	683.4	687.5	691.4	691.9
52.5°	707.9	711.5	711.7	716.4	722.8	728.0	738.8	747.8	757.6	761.0	759.4
55°	748.6	753.5	759.9	767.2	777.5	788.0	806.3	822.6	835.5	843.5	842.2
57.5°	806.8	811.7	818.5	830.3	845.8	860.2	885.2	910.5	930.1	942.2	936.3
60°	882.4	887.5	896.3	908.9	929.0	948.6	982.9	1019.3	1049.7	1063.6	1052.8
62.5°	982.4	987.3	993.0	1009.7	1032.1	1057.4	1100.5	1147.1	1185.8	1199.2	1184.0
65°	1124.9	1130.9	1132.7	1146.3	1168.3	1191.7	1238.1	1290.7	1334.8	1356.7	1326.3
67.5°	1285.5	1287.9	1295.1	1311.1	1333.5	1354.6	1391.2	1441.0	1483.3	1495.4	1462.9
70°	1379.6	1384.3	1396.9	1419.1	1445.9	1479.1	1519.1	1572.7	1620.7	1626.3	1585.1
72.5°	1294.6	1304.1	1326.5	1361.1	1417.3	1476.3	1545.1	1624.3	1693.1	1701.1	1634.8
75°	1038.3	1049.2	1076.0	1113.9	1180.4	1268.0	1367.5	1486.4	1589.5	1602.6	1515.0
77.5°	553.5	566.9	605.8	656.8	751.7	867.7	987.6	1123.1	1210.8	1240.4	1177.3
80°	139.5	146.7	165.5	195.4	259.6	353.2	456.5	602.4	711.2	757.4	711.2
82.5°	54.1	59.5	64.7	68.3	74.5	87.4	120.6	196.7	265.0	326.3	282.5
85°	20.9	22.2	32.0	36.3	36.3	40.0	45.9	54.1	67.0	73.2	61.4
87.5°	8.2	9.0	11.1	17.0	17.5	15.5	16.5	18.6	14.2	11.9	13.4
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°	297.7	297.7	297.7	297.7	297.7	297.7	297.7	297.7
2.5°	296.4	296.2	295.7	295.9	295.7	295.7	295.7	295.7
5°	296.2	296.2	295.7	295.7	295.7	295.9	295.7	295.7
7.5°	295.9	295.7	295.2	294.9	294.9	294.6	294.6	294.6
10°	295.4	294.9	294.4	294.1	294.1	293.6	293.6	293.6
12.5°	296.7	295.9	295.4	295.2	295.2	295.2	295.4	295.4
15°	300.3	298.8	298.0	297.7	298.0	298.5	298.8	299.0
17.5°	304.2	302.6	301.3	300.8	301.1	301.9	302.6	303.1
20°	309.1	307.8	306.2	305.7	305.7	306.8	307.3	308.0
22.5°	316.0	315.0	313.7	312.9	312.4	313.7	314.5	315.0
25°	327.1	326.1	325.1	324.3	324.0	325.3	325.8	326.1
27.5°	341.8	340.8	340.3	340.0	339.2	339.8	340.5	340.3
30°	360.9	361.7	360.9	360.9	359.6	360.1	359.6	359.1
32.5°	386.4	385.6	383.3	381.8	380.0	380.0	379.2	378.4
35°	411.9	409.4	408.1	408.8	408.1	408.6	407.3	406.0
37.5°	442.1	440.5	440.3	442.6	442.1	442.6	442.6	440.8
40°	482.0	481.0	482.8	486.7	488.2	488.0	488.5	486.2
42.5°	527.9	526.1	526.9	530.3	532.1	532.6	532.3	530.3
45°	573.8	574.3	574.3	577.9	579.7	580.8	579.0	578.2
47.5°	625.6	626.4	624.6	626.9	627.4	629.2	627.7	626.4
50°	685.4	682.6	678.5	679.2	679.2	678.7	676.9	675.4
52.5°	752.2	745.8	738.0	735.4	732.6	729.8	726.2	723.3
55°	828.2	817.2	803.2	796.8	791.4	784.9	776.7	773.9
57.5°	916.4	897.3	878.8	867.2	853.3	844.7	834.2	833.7
60°	1021.1	995.3	962.5	945.3	931.4	921.3	913.3	910.2
62.5°	1142.0	1097.6	1062.3	1043.7	1027.5	1021.3	1011.3	1012.6
65°	1266.0	1220.8	1186.6	1171.6	1156.4	1152.3	1143.0	1146.3
67.5°	1400.3	1363.1	1325.5	1311.6	1297.7	1293.5	1284.0	1286.8
70°	1520.6	1473.5	1430.7	1403.4	1379.6	1360.6	1348.4	1343.5
72.5°	1544.6	1462.9	1395.6	1327.3	1287.9	1253.3	1239.1	1233.7
75°	1387.9	1261.1	1165.2	1085.0	1040.7	990.4	985.0	977.5
77.5°	1079.6	935.2	819.2	716.1	656.6	595.2	574.1	558.1
80°	643.9	494.9	383.6	268.9	219.4	176.6	166.0	154.9
82.5°	230.5	147.7	99.5	77.6	69.3	63.9	59.8	54.4
85°	55.7	46.9	44.3	40.2	39.7	33.8	24.0	21.4
87.5°	17.8	16.2	16.5	15.7	16.5	12.4	10.1	9.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)