

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: iO LED

Report Number: P869256

Luminaire Tested: SEL60 UPDATED OPTIC

Issue Date: 8/27/2024

Test Information

Test Method: LM-79-2019
Report Number: P869256
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (SEL60_IESNA95 ns)
Test Lab: EVERFINE
Issue Date: 8/27/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: iO LED
Catalog Number: SEL60 UPDATED OPTIC
Description: WHITE EMERGENCY LIGHT SINGLE HEAD
Light Source: HIGH LUMEN LED
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 366.0 lumens
Efficiency: N/A
Efficacy: 96.3 lumens/watt
Spacing Criteria (0/90/45): 0.29 / 0.29 / 0.33
Luminous Opening: (L: 0 ' x W: -0.25 ' x H: 0 '
CIE Type: Direct

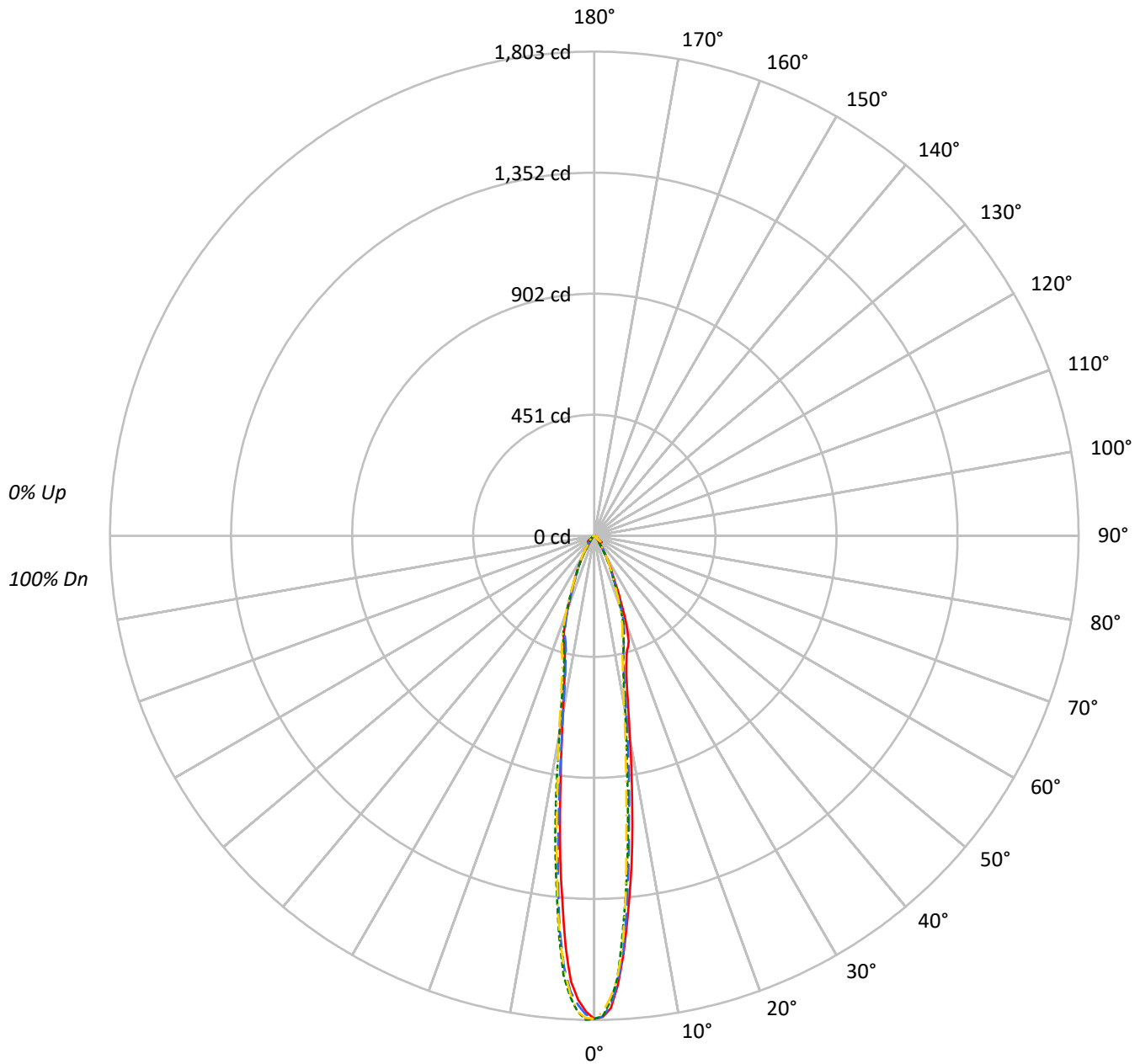
Input Watts (W): 3.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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CATALOG NUMBER: SEL60 UPDATED OPTIC

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95			
2	110	105	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90			
3	105	100	96	92	103	98	95	91	96	93	90	94	91	89	91	89	87	86			
4	101	95	90	87	99	94	89	86	92	88	85	90	87	84	88	85	83	82			
5	97	90	86	82	96	89	85	82	88	84	81	86	83	80	85	82	80	78			
6	94	86	82	78	92	86	81	78	84	80	77	83	79	77	82	79	76	75			
7	91	83	78	75	89	82	78	74	81	77	74	80	76	74	79	76	73	72			
8	87	80	75	72	86	79	75	71	78	74	71	77	74	71	76	73	71	69			
9	85	77	72	69	84	76	72	69	76	71	68	75	71	68	74	71	68	67			
10	82	74	69	66	81	74	69	66	73	69	66	72	69	66	72	68	66	65			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	Luminous shape not found, reference photometric report, or contact the photometric lab for calculations.			
5°				
10°				
15°				
20°				
25°				
30°				
35°				
40°				
45°				
50°				
55°				
60°				
65°				
70°				
75°				
80°				
85°				

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: -

Vertical Angle: -

Luminance: -



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.3	29.9
10°-20°	122.6	33.5
20°-30°	76.0	20.8
30°-40°	28.3	7.7
40°-50°	16.2	4.4
50°-60°	8.3	2.3
60°-70°	4.1	1.1
70°-80°	1.1	0.3
80°-90°	0.0	0.0
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°-30°	307.9	84.1
0°-40°	336.2	91.9
0°-60°	360.7	98.6
0°-90°	366.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	366.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1799	1799	1799	1799	1799	
5°	1427	1341	1367	1502	1427	114
15°	463	422	430	438	463	135
25°	168	153	164	159	168	83
35°	37	29	33	35	37	26
45°	14	26	15	30	14	16
55°	9	8	8	8	9	8
65°	3	6	2	5	3	3
75°	1	2	0	2	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1798.7	1798.7	1798.7	1798.7	1798.7	1798.7	1798.7	1798.7	1798.7	1798.7	1798.7
1°	1792.3	1788.8	1792.0	1789.1	1776.2	1769.6	1772.6	1783.9	1782.0	1802.8	1797.1
2°	1760.3	1747.8	1749.3	1733.8	1720.2	1722.1	1728.4	1747.1	1748.4	1774.0	1775.3
3°	1674.9	1660.6	1670.8	1648.8	1645.7	1649.6	1662.7	1695.9	1701.1	1719.0	1716.2
4°	1558.6	1547.1	1555.1	1496.6	1504.2	1534.1	1533.8	1599.3	1620.4	1639.9	1630.5
5°	1426.9	1396.9	1384.9	1341.1	1329.7	1347.5	1366.8	1447.8	1499.4	1501.7	1512.2
6°	1293.1	1230.6	1213.7	1187.3	1139.3	1133.9	1208.2	1277.7	1304.3	1336.8	1328.5
7°	1155.8	1067.3	1056.0	1026.8	976.3	975.6	1046.0	1106.2	1097.8	1191.8	1149.4
8°	1015.3	938.0	917.7	877.5	843.3	842.1	898.5	930.7	915.3	1036.2	1005.4
9°	880.6	817.1	788.6	757.6	731.5	724.6	774.4	779.5	775.3	881.3	882.7
10°	762.7	714.4	675.3	661.3	639.6	625.4	673.0	669.0	659.2	745.2	769.3
11°	666.2	623.5	580.8	578.1	566.7	554.3	589.0	581.5	576.8	641.2	665.4
12°	587.2	545.1	515.2	520.5	512.0	506.5	527.7	514.8	518.7	561.4	582.9
13°	530.3	494.6	468.9	480.2	469.1	466.0	486.1	471.1	477.1	503.4	521.5
14°	492.5	459.0	436.7	448.2	436.2	431.6	454.8	435.9	442.1	463.6	480.6
15°	463.3	433.4	411.6	421.7	409.9	399.5	429.8	409.6	416.9	438.5	453.0
16°	443.1	415.5	390.5	396.2	387.3	376.0	411.9	392.9	399.3	418.0	428.7
17°	431.2	394.1	370.5	373.4	362.8	353.5	387.7	375.1	377.1	396.2	402.8
18°	412.7	366.1	347.8	347.2	333.8	328.9	359.5	350.8	349.1	371.4	369.4
19°	382.2	334.5	319.7	317.3	303.3	299.5	325.4	321.3	315.6	340.2	338.0
20°	343.6	300.4	289.7	286.6	272.0	270.2	291.8	287.6	280.3	305.7	305.1
21°	304.7	266.0	260.1	255.0	241.2	241.4	256.6	256.3	244.7	270.9	270.5
22°	262.4	230.3	229.2	225.1	211.6	212.7	227.0	228.7	212.1	236.8	239.6
23°	227.3	198.9	198.4	195.3	189.8	190.0	203.7	201.0	187.7	205.4	208.6
24°	192.2	173.6	173.5	172.1	171.7	171.2	182.8	180.5	166.6	179.5	184.9
25°	168.5	153.4	155.3	152.8	155.3	154.9	164.1	163.1	148.1	159.4	165.3
26°	148.7	136.8	139.3	135.2	139.8	138.8	146.8	148.1	131.9	142.0	147.9
27°	131.9	121.8	124.9	118.1	125.1	124.8	130.1	134.6	118.0	125.7	131.7
28°	115.7	108.3	110.9	102.0	112.4	111.2	114.4	121.0	104.1	110.7	117.3
29°	100.1	95.9	98.5	87.6	99.8	98.1	98.6	107.6	91.9	95.7	103.9
30°	86.1	84.4	86.7	73.5	86.7	86.1	84.2	95.7	81.3	81.7	92.1
31°	72.9	74.4	76.8	60.7	75.3	75.6	71.2	84.9	71.3	69.2	80.3
32°	61.7	65.4	67.1	49.2	64.7	65.8	59.8	75.2	62.2	58.2	70.0
33°	51.9	57.4	58.4	38.7	55.4	57.3	49.5	66.6	54.3	48.7	61.3
34°	43.8	50.8	51.0	34.0	49.0	50.0	40.5	58.8	47.6	41.5	53.1
35°	37.0	44.8	45.1	29.1	40.8	43.8	33.4	51.8	41.8	35.0	46.4
36°	31.7	39.5	38.7	25.8	34.9	39.5	28.3	46.1	37.6	30.2	40.9
37°	27.6	35.0	33.7	24.2	30.3	35.0	25.0	40.8	32.5	26.8	36.1
38°	24.6	31.1	29.8	22.8	27.2	31.3	23.1	36.5	29.0	24.4	31.6
39°	22.6	28.2	26.6	21.7	25.3	27.8	22.1	33.2	26.8	22.4	28.1
40°	21.0	25.6	24.1	21.3	23.8	25.4	22.2	29.2	23.7	20.4	25.2
41°	18.2	22.3	22.2	19.8	21.6	22.2	19.2	24.8	20.3	17.5	21.6
42°	15.6	17.9	18.3	16.6	17.9	18.8	15.9	20.2	17.1	15.3	18.1

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CATALOG NUMBER: SEL60 UPDATED OPTIC

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	13.7	15.9	15.0	25.7	20.3	14.6	14.6	24.7	31.3	29.6	19.3
46°	14.1	21.5	18.7	28.1	29.3	17.7	22.8	36.1	25.2	23.0	27.1
47°	20.4	32.5	27.4	22.2	39.0	24.8	32.0	34.8	20.0	17.5	35.0
48°	34.2	30.9	32.1	18.2	26.2	27.9	33.2	23.9	15.6	15.1	22.1
49°	36.7	16.8	19.1	14.4	15.8	29.5	28.2	15.4	12.6	12.6	16.6
50°	19.3	12.7	13.2	12.0	13.1	27.9	14.1	12.3	11.6	11.5	13.4
51°	13.6	11.5	11.5	11.0	12.0	18.9	11.5	11.0	11.2	10.8	12.0
52°	11.1	10.8	11.2	10.1	10.5	11.8	10.2	10.0	10.2	9.8	11.2
53°	10.2	10.1	10.0	9.7	10.0	9.9	9.8	9.5	9.4	9.0	10.8
54°	9.6	9.3	9.2	8.7	9.5	9.2	8.9	9.1	9.1	8.5	10.3
55°	8.8	8.9	9.0	8.2	8.9	8.5	8.2	9.1	8.8	8.4	9.5
56°	8.2	8.3	8.6	7.9	8.5	8.1	7.7	8.5	8.5	8.2	9.2
57°	7.7	8.0	8.4	7.6	7.9	7.8	7.1	7.9	8.1	7.7	8.9
58°	7.2	7.5	7.8	7.1	7.8	7.1	6.4	7.3	8.0	7.6	8.6
59°	6.6	7.1	7.7	6.8	7.7	6.1	5.7	6.8	7.7	7.3	8.3
60°	5.8	6.2	7.5	6.4	7.3	5.6	5.3	5.3	7.4	6.8	7.8
61°	5.2	5.1	7.3	6.2	6.9	5.1	4.8	4.8	6.9	6.4	7.4
62°	5.0	4.8	7.0	6.0	6.4	4.7	4.4	4.6	6.1	6.0	7.0
63°	4.4	4.4	6.5	6.0	5.8	3.6	3.2	4.4	5.4	5.6	6.3
64°	3.8	3.9	6.0	5.7	5.4	3.1	2.7	4.1	5.0	5.1	5.7
65°	3.0	3.4	5.6	5.5	4.7	2.7	2.3	3.2	4.5	5.0	5.2
66°	2.7	2.9	4.9	4.8	4.2	2.3	2.1	2.9	4.3	4.7	4.8
67°	2.3	2.5	4.4	4.7	4.1	2.0	1.8	2.6	4.0	4.4	4.5
68°	2.0	2.2	4.1	4.6	3.9	1.7	1.4	2.2	3.6	4.0	4.1
69°	1.7	1.9	3.8	4.3	3.5	1.3	1.1	1.7	3.2	3.5	3.6
70°	1.4	1.6	3.3	3.8	2.7	1.0	0.8	1.2	2.9	3.2	3.3
71°	1.1	1.2	2.9	3.3	2.3	0.7	0.6	0.8	2.3	2.9	2.9
72°	0.9	0.9	2.5	3.0	2.2	0.5	0.5	0.6	2.5	3.1	2.3
73°	0.7	0.7	2.7	3.1	2.2	0.4	0.4	0.5	2.2	2.5	2.2
74°	0.6	0.6	2.6	2.8	2.3	0.4	0.4	0.4	1.7	2.0	1.9
75°	0.6	0.6	1.7	2.1	1.1	0.4	0.3	0.4	0.9	1.5	1.1
76°	0.5	0.5	0.8	1.4	0.5	0.3	0.3	0.3	0.6	1.4	0.7
77°	0.4	0.4	0.5	0.9	0.3	0.2	0.2	0.2	0.4	0.8	0.5
78°	0.3	0.4	0.4	0.6	0.3	0.2	0.2	0.2	0.3	0.5	0.4
79°	0.3	0.3	0.4	0.4	0.2	0.2	0.1	0.2	0.2	0.4	0.4
80°	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.2	0.3	0.3
81°	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.2
82°	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.2
83°	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.1
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	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):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
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):

	330°	360°
0°	1798.7	1798.7
1°	1794.8	1792.3
2°	1771.8	1760.3
3°	1700.1	1674.9
4°	1600.6	1558.6
5°	1461.3	1426.9
6°	1310.1	1293.1
7°	1145.8	1155.8
8°	990.3	1015.3
9°	864.5	880.6
10°	754.9	762.7
11°	664.8	666.2
12°	594.3	587.2
13°	543.2	530.3
14°	506.2	492.5
15°	476.2	463.3
16°	449.1	443.1
17°	419.0	431.2
18°	387.1	412.7
19°	353.4	382.2
20°	317.1	343.6
21°	279.7	304.7
22°	244.6	262.4
23°	214.5	227.3
24°	190.2	192.2
25°	170.1	168.5
26°	152.7	148.7
27°	137.2	131.9
28°	123.8	115.7
29°	109.9	100.1
30°	98.8	86.1
31°	87.3	72.9
32°	76.6	61.7
33°	67.2	51.9
34°	58.4	43.8
35°	50.6	37.0
36°	43.9	31.7
37°	38.4	27.6
38°	33.6	24.6
39°	29.8	22.6
40°	26.0	21.0
41°	22.0	18.2
42°	18.2	15.6



TEST NUMBER: P869256

CATALOG NUMBER: SEL60 UPDATED OPTIC

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	14.4	13.7
46°	15.1	14.1
47°	20.0	20.4
48°	29.4	34.2
49°	32.4	36.7
50°	25.2	19.3
51°	16.0	13.6
52°	12.4	11.1
53°	10.8	10.2
54°	10.3	9.6
55°	9.9	8.8
56°	9.1	8.2
57°	8.5	7.7
58°	8.1	7.2
59°	7.5	6.6
60°	5.8	5.8
61°	5.4	5.2
62°	4.8	5.0
63°	4.4	4.4
64°	4.1	3.8
65°	3.4	3.0
66°	3.0	2.7
67°	2.6	2.3
68°	2.3	2.0
69°	1.9	1.7
70°	1.5	1.4
71°	1.2	1.1
72°	0.9	0.9
73°	0.7	0.7
74°	0.6	0.6
75°	0.6	0.6
76°	0.5	0.5
77°	0.4	0.4
78°	0.4	0.3
79°	0.3	0.3
80°	0.2	0.2
81°	0.2	0.1
82°	0.1	0.1
83°	0.0	0.0
84°	0.0	0.0
85°	0.0	0.0
86°	0.0	0.0
87°	0.0	0.0



TEST NUMBER: P869256

CATALOG NUMBER: SEL60 UPDATED OPTIC

CANDELA DISTRIBUTION (continued):

	330°	360°
90°	0.0	0.0



Report Generated By 670245859 / DESKTOP-T8S5UU9





— 0°-180° - - 45°-225° - - - - 90°-270° - · - 135°-315°







43°	14.1	15.1	15.7	15.3	16.4	16.4	14.9	18.3	18.7	16.4	16.1
44°	14.4	14.1	14.9	17.0	17.5	15.2	13.5	17.5	25.3	25.7	16.3



88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





43°	15.9	14.1
44°	14.9	14.4



88°	0.0	0.0
89°	0.0	0.0



(END OF REPORT)