

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: C2103279A001

Luminaire Tested: **LT6089FS351EWHDMR**

Test Date: 2021-01-20



Test Information

Test Method: LM-41-14
Report Number: C2103279A001
Test Lab: EVERFINE
Test Date: 2021-01-20
Issue Date: 2021-02-19 09:53:23
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: LT6089FS351EWHDMR
Description: LT6089FS351EWHDMR
Light Source: -
Ballast/Driver: -

Summary

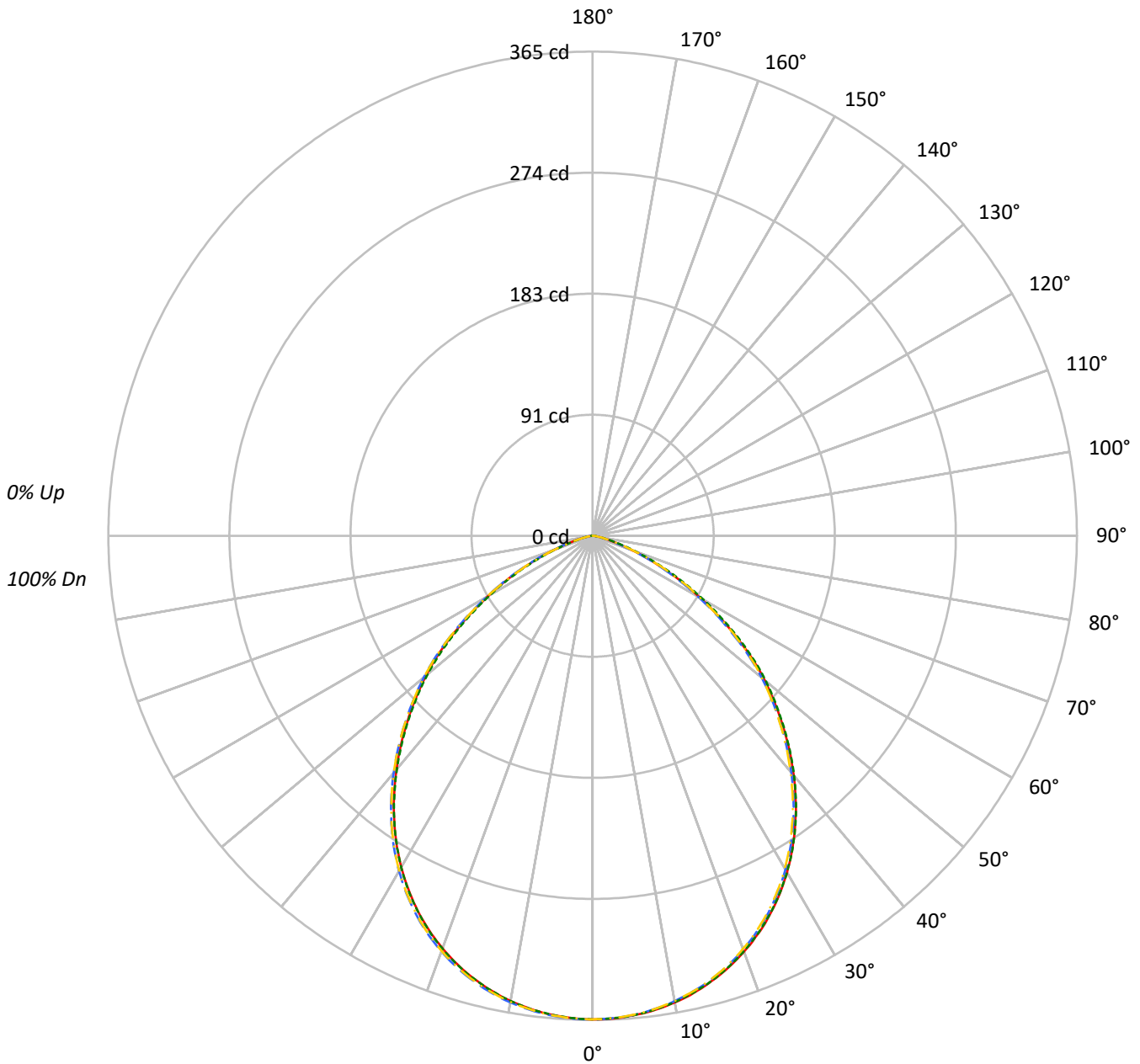
Lumens per Lamp: 787.1 (1 lamp)
Luminaire Lumens: 787.1 lumens
Efficiency: 100.0%
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.27
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 8.15
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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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	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	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76																			
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66																			
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58																			
5	81	69	61	55	79	68	60	54	66	59	54	64	58	53	62	57	53	51																			
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																			
7	69	57	49	43	68	56	49	43	55	48	43	53	47	42	52	46	42	40																			
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36																			
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33																			
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	19989	19989	19989	19989
5°	19964	19957	19939	19933
10°	19886	19869	19822	19823
15°	19719	19707	19616	19624
20°	19464	19448	19308	19322
25°	19090	19079	18867	18883
30°	18552	18549	18265	18269
35°	17820	17824	17456	17446
40°	16874	16908	16456	16416
45°	15726	15792	15291	15215
50°	14422	14545	13985	13842
55°	12567	12782	12180	11946
60°	10267	10599	9980	9764
65°	7742	8174	7571	7328
70°	5029	5514	4924	4670
75°	2764	3084	2720	2474
80°	1353	1589	1291	1174
85°	801	1053	788	782



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	34.4	4.4	4.4
10°-20°	97.7	12.4	12.4
20°-30°	144.3	18.3	18.3
30°-40°	164.5	20.9	20.9
40°-50°	154.0	19.6	19.6
50°-60°	115.5	14.7	14.7
60°-70°	59.5	7.6	7.6
70°-80°	15.5	2.0	2.0
80°-90°	1.7	0.2	0.2
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	276.4	35.1	35.1
0°-40°	440.9	56.0	56.0
0°-60°	710.4	90.3	90.3
0°-90°	787.1	100.0	100.0
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	787.1	100.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	365	365	365	365	365	
5°	363	363	362	362	363	34
15°	347	347	346	346	347	98
25°	316	315	312	312	316	145
35°	266	266	261	261	266	166
45°	203	204	197	196	203	156
55°	131	134	127	125	131	117
65°	60	63	58	56	60	60
75°	13	15	13	12	13	15
85°	1	2	1	1	1	2
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°	364.6	364.6	364.6	364.6	364.6	364.6	364.6	364.6	364.6	364.6	364.6
1°	364.6	364.4	364.5	364.4	364.2	364.4	364.4	364.5	364.7	364.3	364.3
2°	364.4	364.2	364.2	364.1	364.0	364.1	364.1	364.4	364.6	364.1	364.2
3°	364.1	363.8	363.7	363.8	363.5	363.7	363.7	364.0	364.1	363.6	363.8
4°	363.5	363.2	363.1	363.4	362.9	363.1	363.0	363.4	363.7	363.0	363.2
5°	362.8	362.5	362.3	362.7	362.2	362.3	362.3	362.8	363.1	362.2	362.6
6°	362.1	361.5	361.4	361.9	361.3	361.5	361.4	361.9	362.3	361.4	361.7
7°	361.1	360.5	360.3	360.9	360.3	360.4	360.3	360.9	361.3	360.3	360.7
8°	360.0	359.3	359.0	359.7	359.1	359.1	359.0	359.7	360.2	359.1	359.6
9°	358.6	357.9	357.7	358.4	357.6	357.8	357.6	358.4	359.0	357.7	358.3
10°	357.2	356.4	356.0	356.9	356.1	356.2	356.1	356.9	357.6	356.1	356.8
11°	355.6	354.7	354.2	355.2	354.3	354.5	354.4	355.3	356.0	354.4	355.2
12°	353.9	352.9	352.4	353.5	352.5	352.6	352.5	353.5	354.2	352.5	353.5
13°	351.9	351.0	350.4	351.6	350.5	350.6	350.4	351.5	352.4	350.4	351.5
14°	349.8	348.8	348.2	349.5	348.2	348.3	348.1	349.3	350.2	348.2	349.4
15°	347.4	346.4	345.8	347.2	345.8	345.9	345.6	347.0	347.9	345.8	347.0
16°	345.0	343.9	343.3	344.7	343.4	343.4	343.1	344.5	345.5	343.3	344.5
17°	342.5	341.3	340.6	342.2	340.6	340.7	340.3	341.9	342.9	340.5	341.9
18°	339.7	338.5	337.7	339.4	337.7	337.8	337.3	339.1	340.1	337.6	339.2
19°	336.8	335.4	334.7	336.5	334.7	334.7	334.3	336.1	337.2	334.5	336.2
20°	333.6	332.3	331.5	333.4	331.4	331.4	331.0	332.8	334.0	331.2	333.0
21°	330.4	329.0	328.1	330.1	328.1	328.0	327.5	329.5	330.7	327.8	329.7
22°	326.9	325.5	324.6	326.7	324.5	324.5	323.9	326.0	327.2	324.2	326.1
23°	323.4	321.8	320.9	323.0	320.8	320.7	320.1	322.3	323.5	320.2	322.5
24°	319.6	317.9	316.9	319.3	316.8	316.8	316.0	318.4	319.6	316.4	318.6
25°	315.6	313.9	312.9	315.4	312.8	312.8	311.9	314.3	315.6	312.2	314.6
26°	311.5	309.7	308.7	311.2	308.6	308.4	307.6	310.0	311.4	307.7	310.3
27°	307.1	305.4	304.2	306.9	304.1	303.9	303.0	305.6	306.9	303.3	305.8
28°	302.5	300.9	299.7	302.4	299.6	299.3	298.4	301.0	302.4	298.5	301.2
29°	297.8	296.1	294.9	297.7	294.8	294.5	293.5	296.1	297.6	293.6	296.5
30°	293.1	291.3	290.0	293.0	289.7	289.5	288.5	291.1	292.7	288.6	291.5
31°	288.0	286.2	284.9	288.0	284.7	284.4	283.2	285.9	287.5	283.3	286.3
32°	282.8	280.9	279.6	282.9	279.5	279.1	277.9	280.6	282.3	277.8	280.9
33°	277.4	275.6	274.3	277.5	273.9	273.7	272.3	275.1	276.8	272.3	275.5
34°	271.9	270.0	268.6	272.1	268.3	268.0	266.6	269.4	271.0	266.6	269.9
35°	266.3	264.3	262.9	266.3	262.6	262.3	260.8	263.6	265.3	260.7	264.0
36°	260.4	258.4	257.1	260.6	256.9	256.5	255.0	257.7	259.4	254.8	258.1
37°	254.6	252.4	251.1	254.8	250.9	250.5	248.9	251.6	253.2	248.5	252.1
38°	248.3	246.3	244.9	248.7	244.7	244.3	242.7	245.3	247.0	242.3	245.8
39°	242.1	240.0	238.7	242.5	238.5	238.1	236.5	238.9	240.7	235.9	239.5
40°	235.8	233.6	232.3	236.3	232.2	231.9	230.0	232.4	234.2	229.4	233.1
41°	229.3	227.2	225.9	229.9	225.8	225.5	223.6	225.9	227.7	222.9	226.5
42°	222.8	220.6	219.2	223.3	219.4	219.0	217.1	219.2	221.1	216.3	219.9



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	202.8	200.7	199.4	203.7	199.8	199.4	197.2	199.0	201.0	196.3	199.8
46°	196.1	193.9	192.7	197.0	193.0	192.9	190.7	192.3	194.2	189.4	193.1
47°	189.4	187.2	186.1	190.5	186.4	186.4	183.9	185.5	187.3	182.8	186.5
48°	182.6	180.3	179.4	183.8	179.7	179.8	177.3	178.8	180.6	176.0	179.7
49°	175.9	173.5	172.7	177.2	173.1	173.2	170.7	172.0	173.8	169.2	172.9
50°	169.1	166.7	166.0	170.5	166.3	166.7	164.0	165.3	166.8	162.3	166.1
51°	162.1	159.7	159.0	163.6	159.6	160.0	157.1	158.4	160.1	155.2	159.1
52°	154.7	152.4	151.7	156.5	152.5	153.1	149.8	151.2	152.8	147.7	151.9
53°	147.0	144.7	144.0	149.0	145.2	145.8	142.4	143.6	145.4	140.2	144.4
54°	139.2	136.9	136.3	141.4	137.7	138.3	134.9	136.1	137.7	132.6	136.9
55°	131.5	129.1	128.6	133.7	130.0	130.8	127.4	128.5	130.1	125.0	129.2
56°	123.8	121.5	120.9	126.1	122.6	123.3	119.9	121.0	122.6	117.6	121.6
57°	116.1	113.8	113.4	118.6	115.1	115.9	112.5	113.6	115.1	110.2	114.1
58°	108.5	106.2	106.0	111.2	107.7	108.5	105.2	106.1	107.7	102.9	106.7
59°	101.0	98.9	98.7	103.9	100.5	101.3	97.8	99.0	100.4	95.7	99.4
60°	93.6	92.0	91.6	96.7	93.4	94.2	91.0	91.8	93.2	89.1	92.3
61°	86.5	85.2	84.6	89.6	86.9	87.2	84.3	84.9	86.6	82.4	85.3
62°	79.5	78.3	77.7	82.6	80.3	80.3	77.6	78.1	80.0	75.7	78.4
63°	72.8	71.6	71.2	76.0	73.7	73.8	71.0	71.6	73.3	69.1	71.7
64°	66.2	65.1	64.7	69.4	67.2	67.2	64.6	65.2	66.9	62.7	65.2
65°	59.7	58.7	58.4	63.0	60.9	60.9	58.4	59.0	60.5	56.5	58.9
66°	53.6	52.6	52.3	56.8	54.8	54.8	52.3	53.0	54.4	50.6	52.8
67°	47.6	46.7	46.4	50.8	48.9	48.8	46.5	47.3	48.5	44.7	46.9
68°	41.8	41.0	40.9	45.1	43.3	43.1	41.0	41.8	42.9	39.2	41.3
69°	36.4	35.8	35.6	39.6	37.9	37.7	35.6	36.5	37.5	34.0	35.9
70°	31.4	30.8	30.6	34.4	32.8	32.6	30.7	31.6	32.4	29.1	30.9
71°	26.7	26.2	26.1	29.5	28.1	27.8	26.1	27.0	27.7	24.6	26.3
72°	22.5	22.1	22.0	25.1	23.8	23.5	22.1	22.8	23.4	20.7	22.1
73°	18.9	18.5	18.3	21.1	20.0	19.7	18.6	19.2	19.7	17.2	18.4
74°	15.7	15.3	15.2	17.5	16.6	16.3	15.5	15.9	16.3	14.2	15.2
75°	13.0	12.7	12.6	14.6	13.7	13.5	12.8	13.3	13.5	11.7	12.5
76°	10.8	10.5	10.3	12.0	11.3	11.1	10.6	10.9	11.2	9.6	10.3
77°	8.8	8.6	8.4	9.9	9.3	9.2	8.7	9.0	9.2	7.8	8.4
78°	7.2	7.0	6.8	8.0	7.5	7.5	7.1	7.3	7.4	6.2	6.8
79°	5.7	5.6	5.4	6.4	6.0	6.0	5.5	5.9	6.0	4.9	5.4
80°	4.3	4.3	4.2	5.0	4.7	4.6	4.1	4.6	4.7	3.7	4.1
81°	3.2	3.2	3.2	3.9	3.6	3.5	3.2	3.4	3.5	3.0	3.1
82°	2.7	2.7	2.7	3.1	2.9	2.8	2.6	2.8	2.9	2.5	2.6
83°	2.2	2.2	2.2	2.6	2.4	2.3	2.1	2.3	2.4	2.0	2.2
84°	1.7	1.7	1.8	2.1	2.0	1.8	1.7	1.8	2.0	1.6	1.7
85°	1.3	1.3	1.4	1.7	1.6	1.4	1.3	1.4	1.5	1.2	1.3
86°	0.9	0.9	1.0	1.3	1.2	1.0	0.9	0.9	1.2	0.9	0.9
87°	0.5	0.5	0.6	0.9	0.8	0.6	0.5	0.6	0.8	0.5	0.6



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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°	364.6	364.6
1°	364.5	364.6
2°	364.2	364.4
3°	363.9	364.1
4°	363.3	363.5
5°	362.7	362.8
6°	361.9	362.1
7°	360.8	361.1
8°	359.6	360.0
9°	358.4	358.6
10°	356.9	357.2
11°	355.3	355.6
12°	353.4	353.9
13°	351.5	351.9
14°	349.3	349.8
15°	347.0	347.4
16°	344.6	345.0
17°	341.9	342.5
18°	339.2	339.7
19°	336.2	336.8
20°	333.0	333.6
21°	329.6	330.4
22°	326.2	326.9
23°	322.5	323.4
24°	318.7	319.6
25°	314.6	315.6
26°	310.4	311.5
27°	305.9	307.1
28°	301.4	302.5
29°	296.6	297.8
30°	291.8	293.1
31°	286.6	288.0
32°	281.3	282.8
33°	275.8	277.4
34°	270.3	271.9
35°	264.4	266.3
36°	258.6	260.4
37°	252.4	254.6
38°	246.2	248.3
39°	239.9	242.1
40°	233.5	235.8
41°	227.0	229.3
42°	220.4	222.8



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CANDELA DISTRIBUTION (continued):

	330°	360°
45°	200.1	202.8
46°	193.4	196.1
47°	186.6	189.4
48°	179.7	182.6
49°	172.8	175.9
50°	166.0	169.1
51°	158.9	162.1
52°	151.6	154.7
53°	144.0	147.0
54°	136.3	139.2
55°	128.6	131.5
56°	121.1	123.8
57°	113.4	116.1
58°	105.8	108.5
59°	98.5	101.0
60°	91.6	93.6
61°	84.8	86.5
62°	78.0	79.5
63°	71.2	72.8
64°	64.8	66.2
65°	58.4	59.7
66°	52.4	53.6
67°	46.5	47.6
68°	40.8	41.8
69°	35.5	36.4
70°	30.6	31.4
71°	26.0	26.7
72°	21.9	22.5
73°	18.3	18.9
74°	15.2	15.7
75°	12.6	13.0
76°	10.3	10.8
77°	8.5	8.8
78°	6.9	7.2
79°	5.4	5.7
80°	4.2	4.3
81°	3.2	3.2
82°	2.6	2.7
83°	2.1	2.2
84°	1.7	1.7
85°	1.3	1.3
86°	0.9	0.9
87°	0.5	0.5



TEST NUMBER: C2103279A001

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CANDELA DISTRIBUTION (continued):

	330°	360°
90°	0.0	0.0



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







43°	216.2	214.0	212.7	216.9	212.8	212.5	210.5	212.6	214.3	209.6	213.3
44°	209.6	207.3	206.2	210.3	206.3	206.0	203.9	205.8	207.7	203.0	206.6



88°	0.2	0.2	0.3	0.6	0.5	0.3	0.2	0.3	0.5	0.2	0.3
89°	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.0	0.2	0.0	0.0





43°	213.7	216.2
44°	207.0	209.6



88°	0.2	0.2
89°	0.0	0.0



(END OF REPORT)