

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: P123899

Luminaire Tested: **ELSG406930SN (50° BEAM - 35° TILT)**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P123899  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14002)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ELSG406930SN (50° BEAM - 35° TILT)  
Description: HALO 4 INCH RECESSED FIXTURE WITH SQUARE SATIN NICKEL TRIM,  
Light Source: (1)SURFACE MOUNT LED, 3000K CCT, 90CRI  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 710.0 lumens  
Efficiency: N/A  
Efficacy: 54.6 lumens/watt  
Spacing Criteria (0/90/45): 2.87 / 0.65 / 1.64  
Luminous Opening: Vertical Cylinder (Dia: 0.17' x H: 0.08')  
CIE Type: Direct

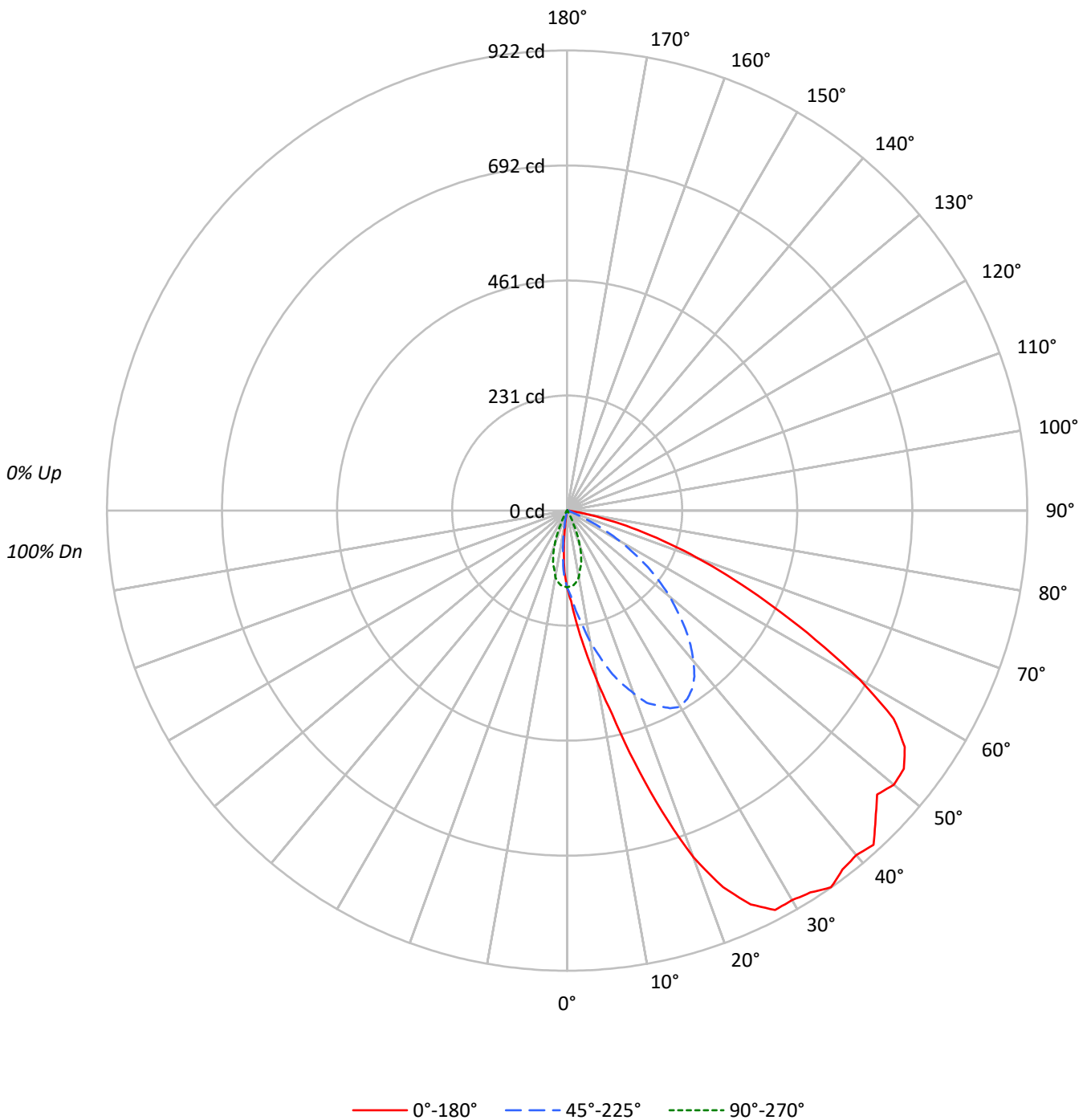
Input Watts (W): 13  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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CATALOG NUMBER: ELSG406930SN (50° BEAM - 35° TILT)

### 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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73				73
3	92	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61				61
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52				52
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45				45
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	38				38
7	65	51	43	36	63	51	42	36	49	42	36	48	41	36	46	40	36	34				34
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	29				29
9	56	42	34	28	55	42	34	28	41	33	28	40	33	28	38	32	28	26				26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23				23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	75931	75931	75931
5°	107620	70323	34904
10°	156119	61078	4594
15°	227775	47606	1353
20°	315058	31288	0
25°	365453	13265	0
30°	375429	3833	0
35°	383939	1708	0
40°	378330	0	0
45°	372487	0	0
50°	372851	0	0
55°	372064	0	0
60°	317195	0	0
65°	224432	0	0
70°	146034	0	0
75°	75440	0	0
80°	20707	0	0
85°	4172	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	14.3	2.0
10°-20°	51.1	7.2
20°-30°	108.1	15.2
30°-40°	149.4	21.0
40°-50°	157.7	22.2
50°-60°	133.1	18.7
60°-70°	72.7	10.2
70°-80°	21.8	3.1
80°-90°	1.8	0.3
90°-100°	0.1	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°	173.5	24.4
0°-40°	322.9	45.5
0°-60°	613.6	86.4
0°-90°	709.9	100.0
90°-120°	0.1	0.0
90°-150°	0.1	0.0
90°-180°	0.0	0.0
0°-180°	710.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	154	154	154	154	154	
5°	229	201	150	96	74	25
15°	522	334	109	6	3	156
25°	871	431	32	0	0	397
35°	922	436	4	0	0	571
45°	874	335	0	0	0	677
55°	826	198	0	0	0	720
65°	455	51	0	0	0	458
75°	134	6	0	0	0	149
85°	6	2	0	0	0	10
90°	4	1	0	0	0	2
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P123899

CATALOG NUMBER: ELSG406930SN (50° BEAM - 35° TILT)

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9
2.5°	181.5	179.4	177.4	178.4	176.4	176.4	175.4	173.3	173.3	171.3	170.3
5°	229.4	223.3	223.3	220.2	218.2	215.1	213.1	209.0	205.9	200.8	197.8
7.5°	283.4	281.4	278.3	278.3	270.2	263.0	256.9	248.8	239.6	230.4	221.2
10°	346.6	346.6	341.5	336.4	328.3	320.1	309.9	295.7	282.4	267.1	250.8
12.5°	418.0	413.9	406.8	397.6	386.4	371.1	354.8	337.4	317.1	298.7	275.3
15°	522.0	513.8	503.6	488.3	466.9	440.4	414.9	387.4	360.9	334.4	305.8
17.5°	632.1	627.0	611.7	589.3	559.7	523.0	484.3	439.4	400.7	362.9	329.3
20°	739.1	732.0	715.7	691.2	650.4	604.6	553.6	495.5	439.4	389.4	346.6
22.5°	816.6	811.5	795.2	774.8	737.1	686.1	621.9	551.5	483.2	417.0	362.9
25°	870.6	862.5	849.2	823.7	792.1	744.2	673.9	596.4	508.7	431.2	367.0
27.5°	902.2	898.2	891.0	872.7	841.1	792.1	724.9	633.1	537.3	446.5	374.2
30°	901.2	901.2	902.2	901.2	880.8	827.8	760.5	659.6	554.6	453.7	375.2
32.5°	907.3	904.3	899.2	904.3	897.1	847.2	776.8	672.9	555.6	447.6	364.0
35°	921.6	915.5	906.3	903.3	903.3	856.4	786.0	675.9	550.5	436.3	351.7
37.5°	906.3	912.4	907.3	895.1	897.1	852.3	781.9	665.7	531.2	419.0	333.4
40°	901.2	904.3	894.1	883.9	883.9	840.1	766.7	637.2	501.6	393.5	308.9
42.5°	908.4	895.1	877.8	879.8	871.7	824.8	741.2	602.5	466.9	366.0	285.5
45°	873.7	862.5	863.5	875.7	854.3	800.3	695.3	554.6	429.2	335.4	257.9
47.5°	842.1	848.2	851.3	848.2	816.6	756.5	633.1	499.5	383.3	299.7	224.3
50°	854.3	850.3	846.2	826.8	790.1	702.4	573.0	445.5	346.6	268.1	199.8
52.5°	850.3	846.2	827.8	797.2	737.1	632.1	500.6	390.5	309.9	232.4	164.1
55°	825.8	817.6	793.2	746.3	658.6	547.5	432.3	339.5	265.1	197.8	129.5
57.5°	775.8	760.5	722.8	653.5	563.8	458.8	368.0	292.6	223.3	158.0	94.8
60°	675.9	660.6	619.8	551.5	467.9	385.4	314.0	246.7	183.5	120.3	62.2
62.5°	561.7	547.5	506.7	449.6	385.4	324.2	262.0	201.9	140.7	83.6	34.7
65°	454.7	441.4	410.9	368.0	321.1	269.1	214.1	158.0	100.9	51.0	14.3
67.5°	361.9	352.7	333.4	301.8	262.0	215.1	165.2	111.1	63.2	24.5	7.1
70°	278.3	274.2	261.0	238.6	203.9	162.1	116.2	72.4	31.6	9.2	5.1
72.5°	200.8	198.8	191.7	176.4	148.8	112.1	74.4	38.7	12.2	6.1	5.1
75°	133.6	132.5	128.5	115.2	94.8	70.3	40.8	13.3	4.1	6.1	5.1
77.5°	77.5	75.4	75.4	68.3	54.0	36.7	13.3	7.1	5.1	3.1	3.1
80°	33.6	33.6	33.6	30.6	21.4	11.2	6.1	2.0	1.0	1.0	1.0
82.5°	11.2	10.2	10.2	10.2	8.2	6.1	5.1	3.1	3.1	2.0	1.0
85°	6.1	6.1	6.1	6.1	5.1	4.1	4.1	3.1	2.0	2.0	1.0
87.5°	5.1	3.1	4.1	3.1	3.1	2.0	3.1	2.0	1.0	2.0	1.0
90°	4.1	2.0	2.0	3.1	2.0	2.0	1.0	2.0	0.0	1.0	1.0
92.5°	1.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P123899

CATALOG NUMBER: ELSG406930SN (50° BEAM - 35° TILT)

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P123899

CATALOG NUMBER: ELSG406930SN (50° BEAM - 35° TILT)

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9
2.5°	167.2	167.2	164.1	161.1	159.0	157.0	153.9	151.9	149.9	147.8	145.8
5°	191.7	186.6	181.5	174.3	169.2	163.1	159.0	149.9	142.7	136.6	131.5
7.5°	217.2	203.9	193.7	184.5	175.4	166.2	156.0	143.7	132.5	121.3	111.1
10°	237.5	221.2	207.0	191.7	180.4	166.2	151.9	135.6	120.3	105.0	91.8
12.5°	252.8	232.4	212.1	194.7	175.4	159.0	139.7	119.3	98.9	82.6	65.2
15°	277.3	249.8	225.3	198.8	179.4	158.0	133.6	109.1	85.6	64.2	45.9
17.5°	293.6	263.0	228.4	199.8	175.4	148.8	121.3	92.8	66.3	45.9	26.5
20°	306.9	266.1	229.4	195.7	169.2	139.7	105.0	73.4	46.9	26.5	12.2
22.5°	316.0	269.1	228.4	191.7	159.0	123.4	87.7	56.1	28.5	13.3	10.2
25°	313.0	263.0	217.2	177.4	141.7	100.9	65.2	31.6	9.2	3.1	1.0
27.5°	314.0	258.9	212.1	170.3	129.5	85.6	47.9	19.4	7.1	3.1	4.1
30°	312.0	252.8	201.9	156.0	110.1	68.3	31.6	9.2	5.1	7.1	3.1
32.5°	297.7	237.5	185.5	137.6	88.7	44.9	13.3	4.1	3.1	1.0	1.0
35°	283.4	222.2	170.3	117.2	68.3	27.5	8.2	4.1	1.0	3.1	1.0
37.5°	263.0	202.9	148.8	93.8	46.9	12.2	4.1	2.0	2.0	1.0	0.0
40°	239.6	179.4	122.3	69.3	25.5	4.1	2.0	0.0	0.0	0.0	0.0
42.5°	218.2	156.0	98.9	46.9	11.2	3.1	2.0	1.0	1.0	0.0	0.0
45°	191.7	128.5	72.4	25.5	6.1	2.0	1.0	0.0	0.0	0.0	2.0
47.5°	160.1	97.9	44.9	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	133.6	73.4	25.5	5.1	3.1	0.0	2.0	0.0	0.0	0.0	0.0
52.5°	99.9	44.9	9.2	4.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	70.3	23.4	6.1	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	41.8	9.2	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	19.4	5.1	2.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	8.2	4.1	2.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
65°	6.1	3.1	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0
67.5°	4.1	3.1	2.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
70°	2.0	2.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
72.5°	3.1	3.1	2.0	1.0	0.0	1.0	1.0	0.0	0.0	0.0	0.0
75°	2.0	1.0	2.0	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0
77.5°	2.0	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	2.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.0	1.0	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
90°	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P123899

CATALOG NUMBER: ELSG406930SN (50° BEAM - 35° TILT)

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P123899

CATALOG NUMBER: ELSG406930SN (50° BEAM - 35° TILT)

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9	153.9
2.5°	142.7	139.7	139.7	136.6	134.6	133.6	132.5	128.5	127.4	126.4	126.4
5°	124.4	118.3	111.1	106.0	100.9	95.8	91.8	89.7	83.6	79.5	77.5
7.5°	100.9	90.7	81.6	73.4	63.2	59.1	50.0	45.9	40.8	37.7	33.6
10°	76.5	65.2	53.0	41.8	33.6	27.5	21.4	17.3	15.3	13.3	11.2
12.5°	47.9	32.6	24.5	16.3	8.2	6.1	6.1	3.1	2.0	2.0	1.0
15°	30.6	17.3	11.2	8.2	8.2	6.1	5.1	4.1	4.1	3.1	3.1
17.5°	14.3	9.2	7.1	4.1	4.1	4.1	3.1	4.1	6.1	3.1	2.0
20°	6.1	5.1	4.1	3.1	2.0	4.1	2.0	1.0	1.0	1.0	1.0
22.5°	6.1	5.1	4.1	5.1	8.2	1.0	3.1	1.0	1.0	0.0	1.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	2.0	2.0	0.0	0.0	1.0	0.0	0.0	0.0	3.1	2.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	6.1	0.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P123899

CATALOG NUMBER: ELSG406930SN (50° BEAM - 35° TILT)

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P123899

CATALOG NUMBER: ELSG406930SN (50° BEAM - 35° TILT)

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	153.9	153.9	153.9	153.9
2.5°	125.4	124.4	125.4	123.4
5°	78.5	74.4	74.4	74.4
7.5°	32.6	30.6	29.6	30.6
10°	11.2	10.2	10.2	10.2
12.5°	2.0	1.0	1.0	1.0
15°	3.1	3.1	3.1	3.1
17.5°	2.0	1.0	2.0	1.0
20°	0.0	0.0	0.0	0.0
22.5°	1.0	1.0	0.0	0.0
25°	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0
30°	1.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0



TEST NUMBER: P123899

CATALOG NUMBER: ELSG406930SN (50° BEAM - 35° TILT)

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0

(END OF REPORT)