

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: P123859

Luminaire Tested: **ELSG406930TBZ (35° BEAM - 35° TILT)**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P123859
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14000)
Test Lab: INNOVATION CENTER-P1
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: ELSG406930TBZ (35° BEAM - 35° TILT)
Description: HALO 4 INCH RECESSED FIXTURE WITH SQUARE TUSCAN BRONZE TRIM,
Light Source: (1)SURFACE MOUNT LED, 3000K CCT, 90CRI
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 719.9 lumens
Efficiency: N/A
Efficacy: 55.4 lumens/watt
Spacing Criteria (0/90/45): 2.57 / 0.75 / 1.48
Luminous Opening: Vertical Cylinder (Dia: 0.17' x H: 0.08')
CIE Type: Direct

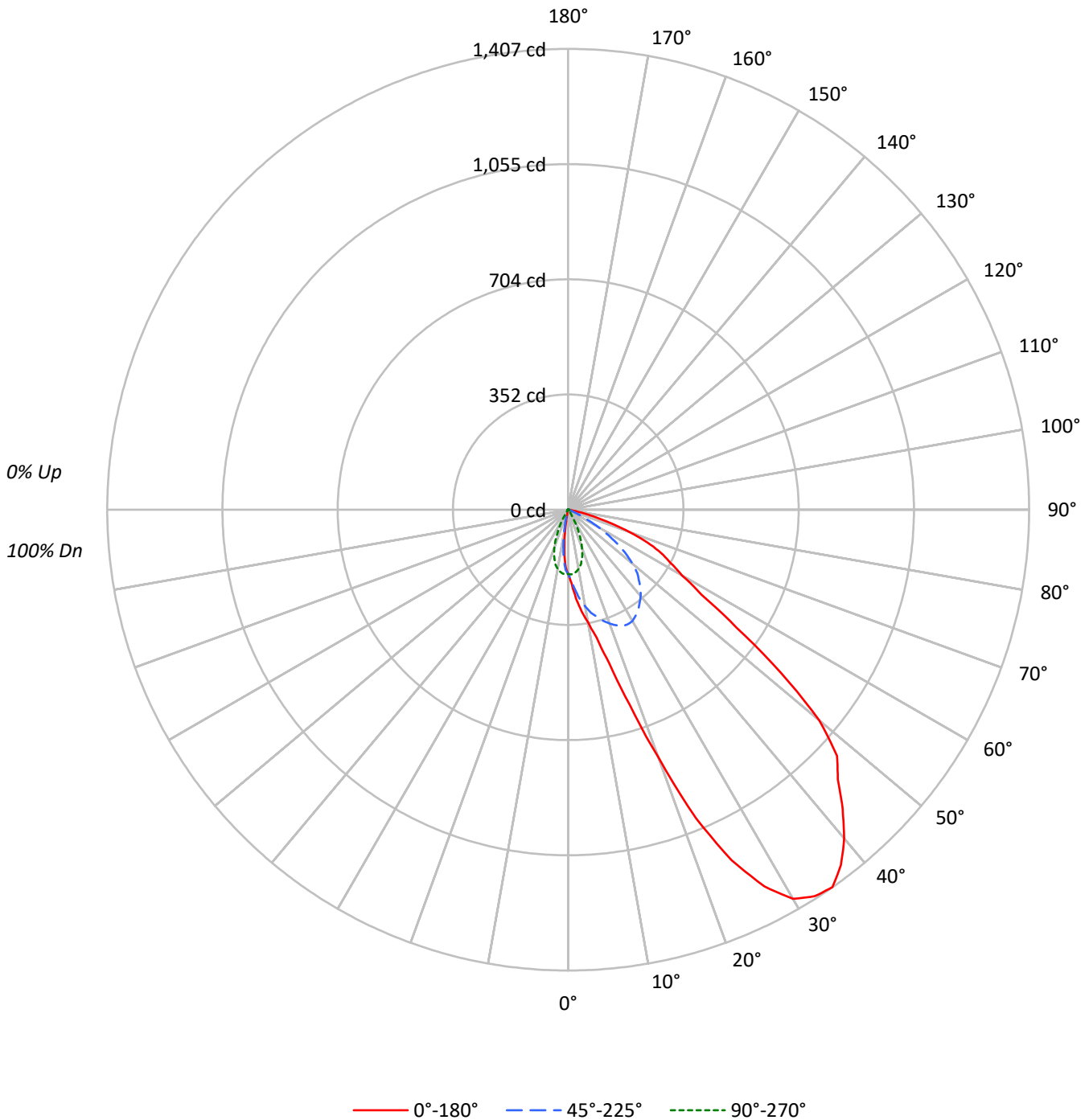
Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P123859

CATALOG NUMBER: ELSG406930TBZ (35° BEAM - 35° TILT)

Luminous Intensity Polar Plot





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CATALOG NUMBER: ELSG406930TBZ (35° BEAM - 35° TILT)

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	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	111	107	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89					87				
2	102	94	88	83	99	93	87	82	89	85	81	86	82	79	83	80	77					75				
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66					64				
4	86	75	67	60	83	73	66	60	71	64	59	69	63	58	66	62	58					56				
5	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	54	50					48				
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	48	44					42				
7	67	54	46	40	66	53	45	40	52	45	40	51	44	39	49	43	39					37				
8	62	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35					33				
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31					29				
10	54	41	34	28	53	41	33	28	40	33	28	39	32	28	38	32	28					26				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	96554	96554	96554
5°	126901	91810	61504
10°	157380	82609	16170
15°	211892	69729	4014
20°	343703	52389	2174
25°	495414	31819	420
30°	571476	13248	833
35°	585990	4249	0
40°	550073	2561	0
45°	496167	1322	0
50°	436833	436	0
55°	282495	1397	0
60°	188468	469	0
65°	154738	494	0
70°	104842	0	525
75°	45117	0	0
80°	7580	0	0
85°	4172	0	0



TEST NUMBER: P123859

CATALOG NUMBER: ELSG406930TBZ (35° BEAM - 35° TILT)

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.6	2.6
10°-20°	56.1	7.8
20°-30°	124.7	17.3
30°-40°	178.6	24.8
40°-50°	166.6	23.1
50°-60°	104.1	14.5
60°-70°	54.3	7.5
70°-80°	14.4	2.0
80°-90°	1.9	0.3
90°-100°	0.7	0.1
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°	199.4	27.7
0°-40°	378.0	52.5
0°-60°	648.7	90.1
0°-90°	719.2	99.9
90°-120°	0.7	0.1
90°-150°	0.7	0.1
90°-180°	1.0	0.1
0°-180°	719.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	196	196	196	196	196	
5°	270	246	196	153	131	28
15°	486	338	160	18	9	154
25°	1180	392	76	5	1	538
35°	1407	373	10	0	0	865
45°	1164	305	3	0	0	901
55°	627	186	3	0	0	584
65°	314	38	1	0	0	304
75°	80	5	0	0	0	94
85°	6	2	0	0	0	7
90°	4	2	0	1	0	2
95°	1	1	1	1	1	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: P123859

CATALOG NUMBER: ELSG406930TBZ (35° BEAM - 35° TILT)

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	195.7	195.7	195.7	195.7	195.7	195.7	195.7	195.7	195.7	195.7	195.7
2.5°	223.3	222.3	222.3	222.3	220.3	220.3	220.3	219.2	217.2	215.1	213.1
5°	270.5	269.4	268.4	266.4	263.3	263.3	259.2	255.1	253.1	245.9	241.8
7.5°	312.5	310.4	309.4	306.3	303.3	300.2	294.0	291.0	281.7	275.6	267.4
10°	349.4	348.3	345.3	342.2	339.1	334.0	326.8	318.6	310.4	300.2	289.9
12.5°	399.6	397.5	393.4	386.2	376.0	366.8	356.5	345.3	333.0	322.7	307.4
15°	485.6	482.5	470.2	456.9	434.4	414.9	393.4	372.9	355.5	338.1	323.7
17.5°	623.9	614.7	594.2	564.5	525.6	485.6	444.6	409.8	379.1	355.5	335.0
20°	806.3	795.0	758.1	707.9	643.4	576.8	510.2	449.8	405.7	369.8	343.2
22.5°	1019.4	1000.9	953.8	882.1	785.8	683.3	585.0	497.9	430.3	382.1	349.4
25°	1180.2	1167.9	1121.8	1048.1	929.2	791.9	658.8	542.0	451.8	392.4	351.4
27.5°	1297.0	1279.6	1232.5	1160.8	1045.0	888.2	720.2	576.8	468.2	394.4	351.4
30°	1371.8	1359.5	1311.4	1234.5	1117.7	954.8	762.2	595.2	474.3	392.4	348.3
32.5°	1399.5	1388.2	1349.3	1271.4	1150.5	986.6	775.6	593.2	461.0	383.2	339.1
35°	1406.6	1387.2	1348.3	1272.4	1150.5	982.5	762.2	574.7	446.7	372.9	329.9
37.5°	1367.7	1353.4	1319.6	1241.7	1123.9	945.6	724.3	540.9	423.1	358.6	317.6
40°	1310.3	1302.1	1265.3	1191.5	1073.7	882.1	664.9	494.8	398.5	344.2	301.2
42.5°	1239.7	1229.4	1196.6	1129.0	996.8	789.9	590.1	449.8	372.9	326.8	283.8
45°	1163.8	1155.6	1122.9	1047.0	883.1	682.3	511.2	405.7	348.3	305.3	257.2
47.5°	1112.6	1099.3	1044.0	926.2	751.0	574.7	449.8	375.0	329.9	285.8	231.5
50°	1000.9	974.3	893.4	765.3	608.6	480.5	398.5	347.3	307.4	257.2	201.8
52.5°	818.6	788.9	710.0	604.5	494.8	413.9	361.7	321.7	278.7	223.3	163.9
55°	627.0	605.5	548.1	480.5	417.0	368.8	330.9	293.0	245.9	186.5	125.0
57.5°	482.5	473.3	441.6	405.7	369.8	337.1	302.2	260.2	207.0	145.5	91.2
60°	401.6	395.5	378.0	360.6	334.0	304.3	267.4	219.2	164.9	105.5	56.3
62.5°	352.4	348.3	336.0	321.7	297.1	266.4	223.3	171.1	117.8	67.6	27.7
65°	313.5	309.4	300.2	286.9	259.2	222.3	176.2	127.0	80.9	37.9	15.4
67.5°	262.3	261.2	253.1	236.7	205.9	169.0	125.0	82.0	45.1	16.4	8.2
70°	199.8	198.8	192.6	177.2	150.6	117.8	84.0	46.1	19.5	9.2	6.1
72.5°	134.2	132.2	129.1	117.8	98.4	73.8	47.1	20.5	9.2	8.2	7.2
75°	79.9	78.9	77.9	70.7	59.4	38.9	18.4	9.2	8.2	5.1	2.0
77.5°	37.9	38.9	38.9	36.9	27.7	14.3	10.2	8.2	6.1	5.1	3.1
80°	12.3	13.3	13.3	12.3	11.3	9.2	8.2	5.1	4.1	3.1	4.1
82.5°	9.2	9.2	9.2	8.2	8.2	6.1	6.1	5.1	4.1	4.1	2.0
85°	6.1	6.1	6.1	5.1	4.1	5.1	4.1	3.1	3.1	2.0	2.0
87.5°	5.1	5.1	3.1	4.1	4.1	3.1	3.1	3.1	2.0	2.0	1.0
90°	4.1	3.1	4.1	3.1	4.1	3.1	3.1	2.0	4.1	2.0	1.0
92.5°	1.0	2.0	2.0	1.0	3.1	2.0	3.1	1.0	1.0	1.0	2.0
95°	1.0	2.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
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: P123859

CATALOG NUMBER: ELSG406930TBZ (35° 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



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CATALOG NUMBER: ELSG406930TBZ (35° BEAM - 35° TILT)

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	195.7	195.7	195.7	195.7	195.7	195.7	195.7	195.7	195.7	195.7	195.7
2.5°	211.0	210.0	208.0	207.0	204.9	202.9	199.8	197.7	196.7	195.7	193.6
5°	237.7	232.6	224.4	220.3	216.2	209.0	200.8	195.7	192.6	185.4	181.3
7.5°	258.2	250.0	239.7	229.5	220.3	209.0	197.7	190.6	180.3	173.1	163.9
10°	278.7	265.3	252.0	236.7	223.3	208.0	194.7	183.4	171.1	158.8	145.5
12.5°	292.0	277.6	261.2	241.8	223.3	203.9	188.5	174.2	156.7	139.3	125.0
15°	305.3	285.8	265.3	242.8	220.3	197.7	179.3	159.8	138.3	117.8	97.3
17.5°	314.5	292.0	267.4	242.8	215.1	190.6	168.0	143.4	117.8	93.2	69.7
20°	319.6	294.0	266.4	235.6	205.9	177.2	152.7	122.9	92.2	66.6	44.1
22.5°	320.7	293.0	261.2	227.4	195.7	163.9	133.2	101.4	68.6	43.0	23.6
25°	325.8	294.0	256.1	218.2	184.4	148.6	114.7	75.8	47.1	24.6	15.4
27.5°	317.6	284.8	243.8	204.9	167.0	128.1	89.1	53.3	25.6	12.3	9.2
30°	315.5	275.6	231.5	190.6	147.5	105.5	64.5	31.8	13.3	9.2	7.2
32.5°	301.2	261.2	215.1	169.0	122.9	77.9	41.0	15.4	8.2	6.1	6.1
35°	289.9	244.9	194.7	145.5	99.4	54.3	22.5	10.2	7.2	5.1	5.1
37.5°	273.5	224.4	172.1	120.9	73.8	33.8	13.3	8.2	6.1	4.1	3.1
40°	256.1	201.8	146.5	95.3	49.2	16.4	8.2	6.1	7.2	3.1	2.0
42.5°	229.5	174.2	118.8	66.6	26.6	8.2	7.2	4.1	3.1	2.0	2.0
45°	199.8	141.4	86.1	38.9	10.2	5.1	2.0	3.1	0.0	0.0	0.0
47.5°	172.1	113.7	63.5	23.6	10.2	6.1	5.1	4.1	3.1	2.0	3.1
50°	139.3	80.9	34.8	10.2	7.2	4.1	3.1	1.0	3.1	1.0	0.0
52.5°	102.5	55.3	16.4	8.2	6.1	3.1	3.1	1.0	1.0	2.0	1.0
55°	70.7	29.7	9.2	7.2	5.1	3.1	2.0	3.1	1.0	0.0	0.0
57.5°	43.0	13.3	8.2	7.2	4.1	5.1	2.0	1.0	2.0	1.0	1.0
60°	20.5	10.2	7.2	5.1	3.1	2.0	1.0	1.0	1.0	1.0	1.0
62.5°	10.2	6.1	5.1	3.1	2.0	0.0	1.0	1.0	0.0	0.0	1.0
65°	8.2	6.1	5.1	2.0	3.1	2.0	1.0	1.0	0.0	0.0	0.0
67.5°	5.1	5.1	3.1	1.0	1.0	1.0	0.0	1.0	0.0	0.0	0.0
70°	4.1	4.1	2.0	2.0	1.0	1.0	0.0	0.0	1.0	0.0	1.0
72.5°	4.1	3.1	1.0	2.0	1.0	1.0	0.0	0.0	0.0	1.0	0.0
75°	2.0	2.0	2.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
77.5°	2.0	2.0	2.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
80°	3.1	3.1	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
82.5°	2.0	2.0	2.0	2.0	2.0	1.0	1.0	0.0	0.0	1.0	1.0
85°	1.0	2.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	0.0	0.0	1.0
90°	1.0	2.0	1.0	1.0	2.0	0.0	0.0	0.0	0.0	1.0	1.0
92.5°	0.0	2.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0
95°	0.0	2.0	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	1.0	0.0	1.0	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: P123859

CATALOG NUMBER: ELSG406930TBZ (35° 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: P123859

CATALOG NUMBER: ELSG406930TBZ (35° BEAM - 35° TILT)

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	195.7	195.7	195.7	195.7	195.7	195.7	195.7	195.7	195.7	195.7	195.7
2.5°	191.6	189.5	186.5	186.5	185.4	183.4	182.4	181.3	179.3	176.2	177.2
5°	175.2	170.1	164.9	159.8	155.7	152.7	147.5	142.4	139.3	140.4	137.3
7.5°	155.7	146.5	138.3	129.1	120.9	113.7	107.6	101.4	94.3	91.2	87.1
10°	132.2	117.8	106.5	96.3	84.0	73.8	66.6	59.4	51.2	48.2	43.0
12.5°	105.5	89.1	75.8	62.5	49.2	40.0	32.8	25.6	20.5	17.4	16.4
15°	76.8	58.4	44.1	31.8	21.5	18.4	12.3	12.3	11.3	10.2	10.2
17.5°	51.2	32.8	22.5	14.3	12.3	10.2	10.2	10.2	9.2	9.2	7.2
20°	25.6	15.4	11.3	9.2	7.2	7.2	7.2	6.1	5.1	4.1	4.1
22.5°	16.4	13.3	8.2	6.1	9.2	6.1	5.1	4.1	3.1	3.1	2.0
25°	10.2	8.2	7.2	6.1	4.1	5.1	4.1	3.1	2.0	3.1	2.0
27.5°	7.2	6.1	5.1	3.1	2.0	3.1	1.0	2.0	1.0	1.0	1.0
30°	5.1	4.1	7.2	2.0	2.0	4.1	3.1	2.0	0.0	5.1	2.0
32.5°	3.1	1.0	1.0	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
35°	3.1	1.0	1.0	0.0	2.0	0.0	1.0	0.0	0.0	0.0	0.0
37.5°	2.0	2.0	1.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0
40°	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	1.0	1.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0
50°	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	1.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0
55°	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	1.0	0.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0	1.0
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	1.0	0.0	2.0	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	1.0	1.0	0.0	0.0	1.0	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	1.0	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	1.0	0.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	1.0
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°	1.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	1.0	0.0	1.0	1.0	0.0	0.0	1.0	0.0	0.0
92.5°	1.0	0.0	0.0	1.0	0.0	1.0	0.0	1.0	1.0	1.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0	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: P123859

CATALOG NUMBER: ELSG406930TBZ (35° 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: P123859

CATALOG NUMBER: ELSG406930TBZ (35° BEAM - 35° TILT)

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	195.7	195.7	195.7	195.7
2.5°	175.2	176.2	174.2	175.2
5°	132.2	131.1	132.2	131.1
7.5°	83.0	83.0	80.9	79.9
10°	40.0	38.9	36.9	35.9
12.5°	15.4	15.4	14.3	14.3
15°	10.2	9.2	10.2	9.2
17.5°	7.2	8.2	6.1	8.2
20°	5.1	4.1	4.1	5.1
22.5°	2.0	2.0	3.1	1.0
25°	2.0	2.0	2.0	1.0
27.5°	1.0	1.0	1.0	1.0
30°	0.0	1.0	1.0	2.0
32.5°	0.0	0.0	0.0	0.0
35°	0.0	2.0	0.0	0.0
37.5°	0.0	0.0	1.0	0.0
40°	0.0	0.0	1.0	0.0
42.5°	1.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0
47.5°	1.0	0.0	1.0	3.1
50°	0.0	1.0	0.0	0.0
52.5°	1.0	0.0	1.0	0.0
55°	0.0	0.0	0.0	0.0
57.5°	0.0	1.0	1.0	0.0
60°	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0
65°	0.0	2.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	1.0
72.5°	0.0	0.0	1.0	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	1.0	0.0
90°	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0
95°	1.0	0.0	1.0	1.0
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: P123859

CATALOG NUMBER: ELSG406930TBZ (35° 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)