

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: P130188

Luminaire Tested: **HL612ICAT - HLM6940 - HL6FL - 71PS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130188
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33457)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL612ICAT - HLM6940 - HL6FL - 71PS
Description: HALO ALLSLOPE 6" 21W, Drop Opal Glass Lens, White Polymer Trim Ring
"Dead Front", Wet Location - Showerlight using 40 Degree Optic at a 6-12
Pitch
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 925.4 lumens
Efficiency: N/A
Efficacy: 48.4 lumens/watt
Spacing Criteria (0/90/45): 1.32 / 1.3 / 1.45
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')
CIE Type: Direct

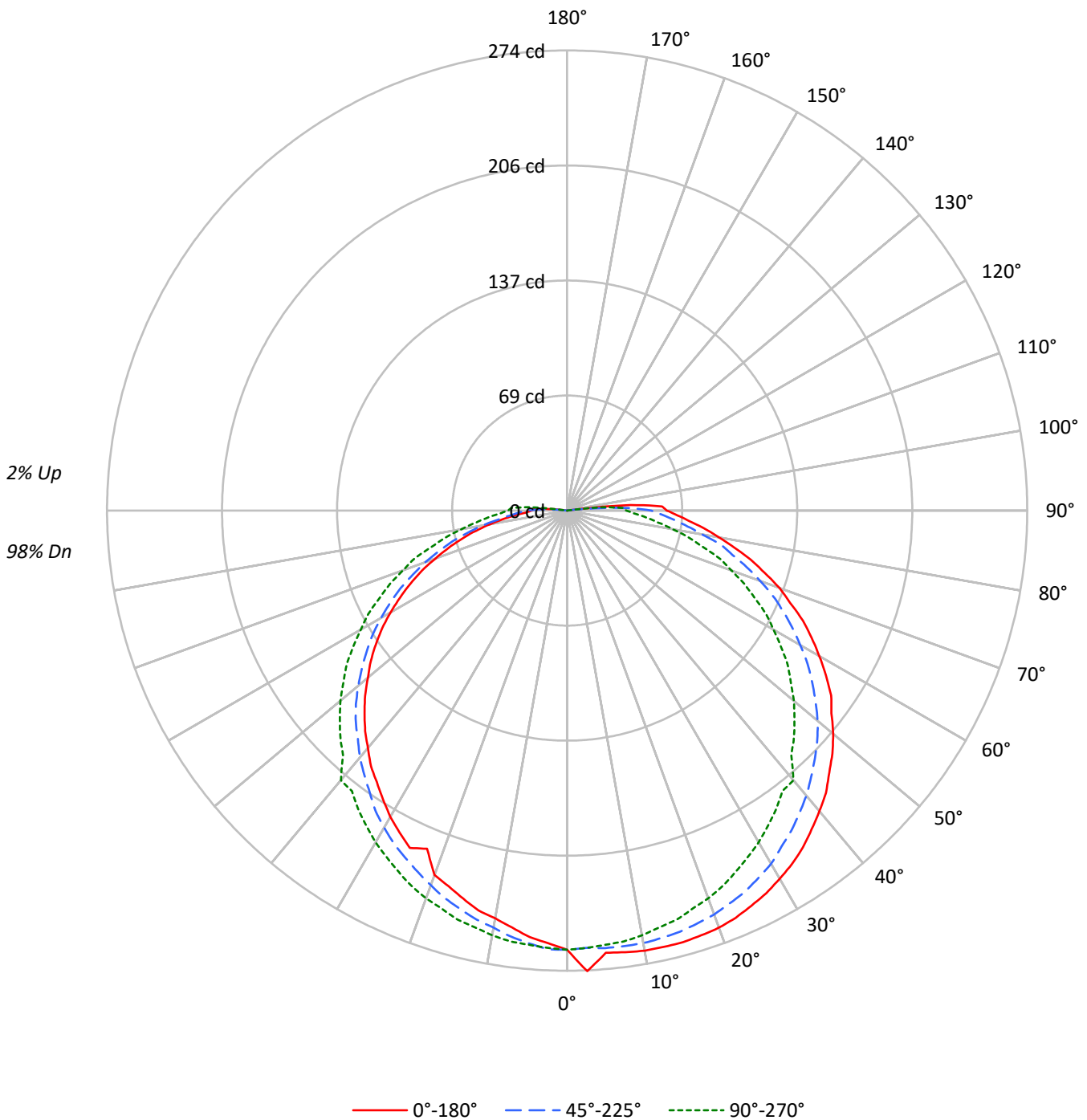
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	110	110	110	105	105	105	100	100	100	98
1	106	100	95	90	103	98	93	89	93	89	86	89	85	83	85	82	80	77
2	95	86	78	72	92	84	77	71	80	74	69	76	71	67	73	69	65	63
3	86	75	66	59	84	73	65	58	70	62	57	66	60	55	64	58	54	52
4	79	66	56	49	76	64	55	48	61	54	48	59	52	47	56	51	46	43
5	72	58	49	42	70	57	48	41	55	47	41	52	46	40	50	44	39	37
6	67	52	43	36	64	51	42	36	49	41	35	47	40	35	46	39	34	32
7	62	47	38	32	60	46	38	31	45	37	31	43	36	31	41	35	30	28
8	57	43	34	28	56	42	34	28	41	33	28	39	32	27	38	32	27	25
9	53	39	31	25	52	39	31	25	37	30	25	36	29	24	35	29	24	22
10	50	36	28	23	49	36	28	23	35	27	22	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	15609	15609	15609
5°	15477	15201	14932
10°	15407	14868	14278
15°	15351	14549	13799
20°	15308	14231	13374
25°	15213	13912	12986
30°	15125	13631	12579
35°	15040	13332	12134
40°	14890	13355	11755
45°	14719	12738	11378
50°	14585	12427	10925
55°	14477	12100	10494
60°	14176	11601	9933
65°	13937	11093	9258
70°	13568	10481	8423
75°	13096	9669	7515
80°	12587	8775	6362
85°	12435	8024	5191



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.7	2.7
10°-20°	71.4	7.7
20°-30°	110.4	11.9
30°-40°	137.1	14.8
40°-50°	149.0	16.1
50°-60°	144.7	15.6
60°-70°	124.2	13.4
70°-80°	90.8	9.8
80°-90°	54.5	5.9
90°-100°	18.5	2.0
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°	206.5	22.3
0°-40°	343.7	37.1
0°-60°	637.5	68.9
0°-90°	906.9	98.0
90°-120°	18.5	2.0
90°-150°	18.5	2.0
90°-180°	18.0	1.9
0°-180°	925.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	262	262	262	262	262	
5°	264	262	260	259	255	25
15°	266	260	252	246	239	75
25°	260	250	237	228	222	120
35°	245	233	217	205	198	153
45°	221	209	191	178	171	171
55°	192	178	160	146	139	171
65°	155	142	123	109	103	153
75°	113	102	84	70	65	119
85°	73	64	47	34	31	64
90°	59	50	35	24	21	33
95°	38	12	23	5	11	18
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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5
2.5°	274.5	262.4	267.0	264.3	261.5	264.3	262.4	266.1	259.6	260.6	261.5
5°	264.3	264.3	268.9	266.1	262.4	265.2	264.3	267.0	260.6	261.5	262.4
7.5°	265.2	266.1	269.8	266.1	263.3	266.1	264.3	267.0	261.5	261.5	262.4
10°	266.1	266.1	269.8	267.0	264.3	266.1	264.3	267.0	261.5	261.5	262.4
12.5°	266.1	267.0	270.8	267.0	264.3	266.1	264.3	266.1	261.5	260.6	261.5
15°	266.1	271.7	269.8	266.1	263.3	265.2	263.3	266.1	259.6	259.6	260.6
17.5°	265.2	265.2	268.9	265.2	262.4	264.3	261.5	264.3	257.8	257.8	258.7
20°	264.3	264.3	267.0	263.3	261.5	262.4	259.6	262.4	256.8	255.9	255.9
22.5°	262.4	261.5	264.3	261.5	258.7	259.6	256.8	259.6	254.1	253.1	254.1
25°	259.6	259.6	261.5	258.7	255.9	256.8	254.1	255.9	251.3	250.4	250.4
27.5°	256.8	255.9	258.7	255.0	253.1	253.1	250.4	253.1	247.6	246.6	246.6
30°	253.1	252.2	255.0	251.3	249.4	249.4	246.6	248.5	243.9	242.9	242.9
32.5°	249.4	247.6	250.4	246.6	244.8	244.8	242.0	243.9	238.3	237.4	237.4
35°	244.8	242.9	244.8	241.1	240.2	239.2	236.4	238.3	233.7	232.7	231.8
37.5°	239.2	238.3	239.2	236.4	234.6	234.6	230.9	232.7	228.1	227.2	227.2
40°	233.7	232.7	233.7	230.9	229.0	228.1	225.3	227.2	222.5	221.6	220.7
42.5°	228.1	226.2	227.2	224.4	222.5	222.5	219.8	219.8	216.1	215.1	215.1
45°	220.7	219.8	220.7	217.9	216.1	216.1	212.3	213.3	209.6	208.6	207.7
47.5°	214.2	213.3	214.2	211.4	209.6	208.6	205.9	206.8	203.1	202.1	201.2
50°	206.8	205.9	205.9	204.0	202.1	201.2	198.4	198.4	195.7	194.7	193.8
52.5°	198.4	197.5	198.4	195.7	194.7	192.9	191.0	190.1	188.2	186.4	185.5
55°	191.9	190.1	190.1	187.3	186.4	185.5	182.7	181.7	179.9	178.0	177.1
57.5°	182.7	180.8	180.8	178.0	178.0	176.2	174.3	173.4	170.6	169.7	168.8
60°	173.4	172.5	171.5	169.7	168.8	167.8	165.1	164.1	162.3	160.4	159.5
62.5°	164.1	163.2	162.3	160.4	160.4	158.6	155.8	154.9	153.0	151.1	150.2
65°	154.9	153.0	153.0	151.1	150.2	148.4	145.6	145.6	143.7	141.9	140.9
67.5°	143.7	143.7	142.8	140.9	140.0	139.1	136.3	132.6	133.5	132.6	130.7
70°	134.5	132.6	131.7	130.7	130.7	128.9	126.1	123.3	123.3	122.4	120.5
72.5°	123.3	122.4	121.5	120.5	119.6	118.7	115.9	115.0	113.1	112.2	110.3
75°	113.1	112.2	111.3	110.3	109.4	108.5	105.7	104.8	102.9	102.0	100.1
77.5°	102.0	101.1	101.1	99.2	99.2	98.3	95.5	94.6	92.7	93.7	89.9
80°	91.8	90.9	90.9	89.0	89.0	87.2	85.3	84.4	82.5	81.6	79.7
82.5°	82.5	81.6	80.7	79.7	79.7	77.9	76.0	74.2	73.3	72.3	70.5
85°	73.3	72.3	72.3	70.5	70.5	68.6	66.8	65.8	64.9	64.0	62.1
87.5°	65.8	64.9	64.0	63.1	63.1	62.1	59.3	58.4	57.5	56.6	54.7
90°	59.3	58.4	58.4	57.5	56.6	55.6	53.8	51.9	51.0	50.1	48.2
92.5°	56.6	55.6	55.6	52.9	51.9	49.1	45.4	41.7	38.0	36.2	36.2
95°	38.0	37.1	38.0	34.3	32.5	26.9	22.3	18.5	14.8	12.1	12.1
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



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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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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5
2.5°	260.6	263.3	258.7	261.5	264.3	262.4	264.3	260.6	259.6	258.7	259.6
5°	260.6	263.3	259.6	261.5	264.3	261.5	264.3	259.6	258.7	257.8	258.7
7.5°	260.6	263.3	258.7	260.6	264.3	260.6	262.4	258.7	256.8	255.9	255.9
10°	260.6	262.4	257.8	259.6	262.4	258.7	260.6	256.8	255.0	253.1	254.1
12.5°	258.7	260.6	256.8	257.8	260.6	256.8	258.7	254.1	252.2	251.3	251.3
15°	257.8	259.6	255.0	255.9	261.5	254.1	255.9	252.2	249.4	247.6	247.6
17.5°	255.0	250.4	252.2	253.1	255.9	251.3	253.1	248.5	246.6	244.8	243.9
20°	253.1	254.1	250.4	250.4	253.1	248.5	249.4	245.7	247.6	242.0	240.2
22.5°	250.4	250.4	246.6	246.6	250.4	244.8	245.7	242.0	239.2	237.4	236.4
25°	246.6	247.6	243.9	243.9	246.6	241.1	242.0	237.4	234.6	233.7	231.8
27.5°	242.9	242.9	239.2	239.2	242.0	236.4	236.4	232.7	230.0	229.0	227.2
30°	238.3	238.3	234.6	234.6	237.4	230.9	231.8	228.1	225.3	223.5	221.6
32.5°	232.7	232.7	230.0	229.0	231.8	226.2	226.2	222.5	223.5	217.9	216.1
35°	228.1	228.1	224.4	223.5	226.2	219.8	219.8	217.0	213.3	212.3	210.5
37.5°	222.5	221.6	218.8	217.9	219.8	213.3	214.2	210.5	207.7	205.9	204.0
40°	217.0	216.1	213.3	212.3	214.2	207.7	207.7	209.6	201.2	204.0	197.5
42.5°	209.6	209.6	206.8	204.9	206.8	200.3	201.2	197.5	193.8	192.9	190.1
45°	203.1	202.1	200.3	198.4	199.4	193.8	193.8	191.0	187.3	185.5	183.6
47.5°	196.6	195.7	191.9	191.0	191.9	186.4	186.4	183.6	179.9	179.0	176.2
50°	189.2	188.2	185.5	183.6	184.5	179.0	179.0	176.2	172.5	170.6	168.8
52.5°	180.8	179.9	177.1	175.3	176.2	170.6	170.6	167.8	166.9	162.3	160.4
55°	173.4	171.5	168.8	166.9	167.8	162.3	162.3	160.4	155.8	154.9	152.1
57.5°	165.1	163.2	160.4	158.6	159.5	153.9	153.9	151.1	147.4	145.6	143.7
60°	155.8	153.9	152.1	150.2	150.2	145.6	144.7	141.9	138.2	137.2	134.5
62.5°	146.5	144.7	142.8	140.9	140.9	136.3	135.4	133.5	129.8	128.0	125.2
65°	137.2	135.4	132.6	130.7	130.7	126.1	126.1	123.3	119.6	118.7	115.9
67.5°	127.0	126.1	123.3	121.5	121.5	116.8	115.9	114.1	110.3	108.5	106.6
70°	117.8	115.9	113.1	111.3	111.3	107.6	106.6	103.9	101.1	99.2	96.4
72.5°	107.6	105.7	102.9	102.0	101.1	97.4	96.4	95.5	90.9	89.9	87.2
75°	97.4	95.5	93.7	91.8	90.9	87.2	86.2	83.5	80.7	79.7	77.0
77.5°	87.2	85.3	83.5	81.6	80.7	77.0	76.0	74.2	71.4	69.5	67.7
80°	77.0	75.1	73.3	71.4	70.5	67.7	65.8	64.0	61.2	62.1	57.5
82.5°	68.6	65.8	64.0	62.1	61.2	58.4	56.6	54.7	51.9	51.0	49.1
85°	60.3	57.5	55.6	53.8	52.9	50.1	48.2	47.3	44.5	43.6	40.8
87.5°	52.9	50.1	49.1	47.3	45.4	42.7	41.7	39.9	37.1	36.2	34.3
90°	46.4	44.5	43.6	41.7	39.9	37.1	36.2	35.2	32.5	31.5	29.7
92.5°	36.2	37.1	37.1	36.2	37.1	35.2	34.3	33.4	31.5	29.7	27.8
95°	13.9	16.7	18.5	20.4	23.2	23.2	23.2	23.2	21.3	19.5	17.6
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: P130188

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6FL - 71PS

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: P130188

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6FL - 71PS

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5	261.5
2.5°	262.4	256.8	256.8	259.6	257.8	261.5	260.6	260.6	259.6	258.7	253.1
5°	260.6	255.0	255.0	257.8	255.0	258.7	257.8	257.8	256.8	255.9	254.1
7.5°	258.7	253.1	252.2	255.0	252.2	255.9	255.0	254.1	253.1	252.2	250.4
10°	255.9	250.4	249.4	252.2	248.5	252.2	251.3	250.4	249.4	248.5	246.6
12.5°	253.1	247.6	246.6	248.5	245.7	249.4	248.5	247.6	246.6	244.8	242.9
15°	249.4	243.9	243.9	245.7	242.9	245.7	244.8	243.9	242.9	241.1	239.2
17.5°	246.6	240.2	240.2	242.0	238.3	242.0	240.2	239.2	238.3	237.4	234.6
20°	242.9	236.4	236.4	238.3	234.6	237.4	236.4	235.5	234.6	232.7	230.9
22.5°	238.3	232.7	231.8	233.7	230.0	232.7	231.8	230.9	230.0	229.0	227.2
25°	233.7	228.1	227.2	229.0	225.3	228.1	227.2	226.2	225.3	223.5	221.6
27.5°	229.0	223.5	222.5	224.4	220.7	223.5	222.5	220.7	219.8	218.8	217.0
30°	223.5	217.9	217.0	219.8	215.1	217.9	216.1	216.1	214.2	213.3	211.4
32.5°	217.9	212.3	211.4	213.3	209.6	212.3	210.5	215.1	207.7	206.8	204.9
35°	212.3	206.8	204.9	206.8	203.1	204.9	204.9	203.1	202.1	200.3	198.4
37.5°	204.9	200.3	199.4	200.3	196.6	198.4	197.5	196.6	195.7	194.7	191.9
40°	198.4	193.8	192.9	193.8	190.1	191.9	191.0	191.0	189.2	188.2	186.4
42.5°	191.9	186.4	185.5	186.4	183.6	184.5	183.6	183.6	181.7	180.8	179.0
45°	184.5	179.9	179.0	179.9	176.2	178.0	177.1	176.2	174.3	173.4	171.5
47.5°	177.1	172.5	171.5	172.5	168.8	170.6	169.7	168.8	166.9	166.0	164.1
50°	168.8	165.1	164.1	165.1	161.3	162.3	161.3	161.3	159.5	158.6	156.7
52.5°	161.3	156.7	155.8	156.7	153.0	153.9	153.9	153.0	151.1	150.2	149.3
55°	153.0	149.3	148.4	148.4	144.7	145.6	144.7	144.7	142.8	141.9	140.9
57.5°	144.7	140.0	139.1	139.1	136.3	137.2	136.3	136.3	134.5	133.5	131.7
60°	135.4	131.7	130.7	130.7	127.0	128.0	127.0	127.0	125.2	124.3	122.4
62.5°	126.1	122.4	121.5	121.5	117.8	118.7	118.7	117.8	115.9	115.0	114.1
65°	116.8	113.1	112.2	111.3	108.5	109.4	108.5	107.6	106.6	105.7	104.8
67.5°	106.6	103.9	104.8	102.0	99.2	99.2	99.2	98.3	96.4	96.4	95.5
70°	97.4	93.7	92.7	91.8	89.0	89.9	89.0	88.1	87.2	86.2	85.3
72.5°	87.2	84.4	82.5	82.5	79.7	79.7	79.7	78.8	77.0	77.0	76.0
75°	77.0	74.2	73.3	72.3	69.5	70.5	68.6	68.6	66.8	66.8	65.8
77.5°	66.8	64.0	64.0	62.1	60.3	60.3	59.3	59.3	58.4	57.5	56.6
80°	56.6	54.7	53.8	52.9	51.0	51.0	50.1	49.1	48.2	48.2	47.3
82.5°	48.2	46.4	45.4	43.6	42.7	41.7	41.7	40.8	39.9	39.9	38.9
85°	39.9	38.0	37.1	36.2	35.2	34.3	33.4	33.4	32.5	31.5	31.5
87.5°	33.4	32.5	31.5	30.6	28.7	28.7	27.8	27.8	26.9	26.0	25.0
90°	28.7	27.8	26.9	26.0	25.0	24.1	23.2	23.2	22.3	22.3	21.3
92.5°	26.0	23.2	20.4	19.5	16.7	16.7	15.8	16.7	16.7	17.6	18.5
95°	14.8	12.1	9.3	7.4	5.6	4.6	4.6	5.6	6.5	8.3	10.2
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: P130188

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6FL - 71PS

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: P130188

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6FL - 71PS

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	261.5	261.5	261.5	261.5
2.5°	261.5	263.3	260.6	257.8
5°	258.7	260.6	257.8	255.0
7.5°	255.0	255.9	254.1	250.4
10°	251.3	252.2	249.4	246.6
12.5°	247.6	248.5	246.6	243.9
15°	243.9	244.8	242.0	239.2
17.5°	239.2	240.2	238.3	234.6
20°	234.6	236.4	233.7	230.9
22.5°	230.0	231.8	229.0	217.9
25°	225.3	226.2	224.4	221.6
27.5°	219.8	220.7	218.8	216.1
30°	214.2	215.1	213.3	210.5
32.5°	207.7	208.6	207.7	204.0
35°	201.2	202.1	200.3	197.5
37.5°	194.7	195.7	193.8	191.9
40°	188.2	189.2	187.3	184.5
42.5°	180.8	181.7	179.9	178.0
45°	173.4	174.3	172.5	170.6
47.5°	168.8	166.0	165.1	163.2
50°	158.6	158.6	157.6	154.9
52.5°	150.2	150.2	149.3	147.4
55°	143.7	141.9	140.9	139.1
57.5°	132.6	132.6	131.7	130.7
60°	124.3	123.3	123.3	121.5
62.5°	115.0	115.0	115.0	112.2
65°	104.8	105.7	104.8	102.9
67.5°	96.4	95.5	95.5	93.7
70°	86.2	85.3	85.3	83.5
72.5°	76.0	76.0	76.0	74.2
75°	65.8	65.8	65.8	64.9
77.5°	56.6	56.6	56.6	55.6
80°	47.3	47.3	46.4	46.4
82.5°	38.9	38.0	38.9	38.0
85°	31.5	30.6	31.5	30.6
87.5°	25.0	25.0	25.0	24.1
90°	21.3	21.3	21.3	21.3
92.5°	19.5	19.5	20.4	19.5
95°	11.1	11.1	11.1	11.1
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: P130188

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6FL - 71PS

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)