

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: P130194

Luminaire Tested: **HL612ICAT - HLM6930 - HL6FL - ERT702**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130194
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33460)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL612ICAT - HLM6930 - HL6FL - ERT702
Description: HALO ALLSLOPE 6" 21W, Drop Opal Plastic 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 / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1093.2 lumens
Efficiency: N/A
Efficacy: 57.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.84 / 1.09
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')
CIE Type: Direct

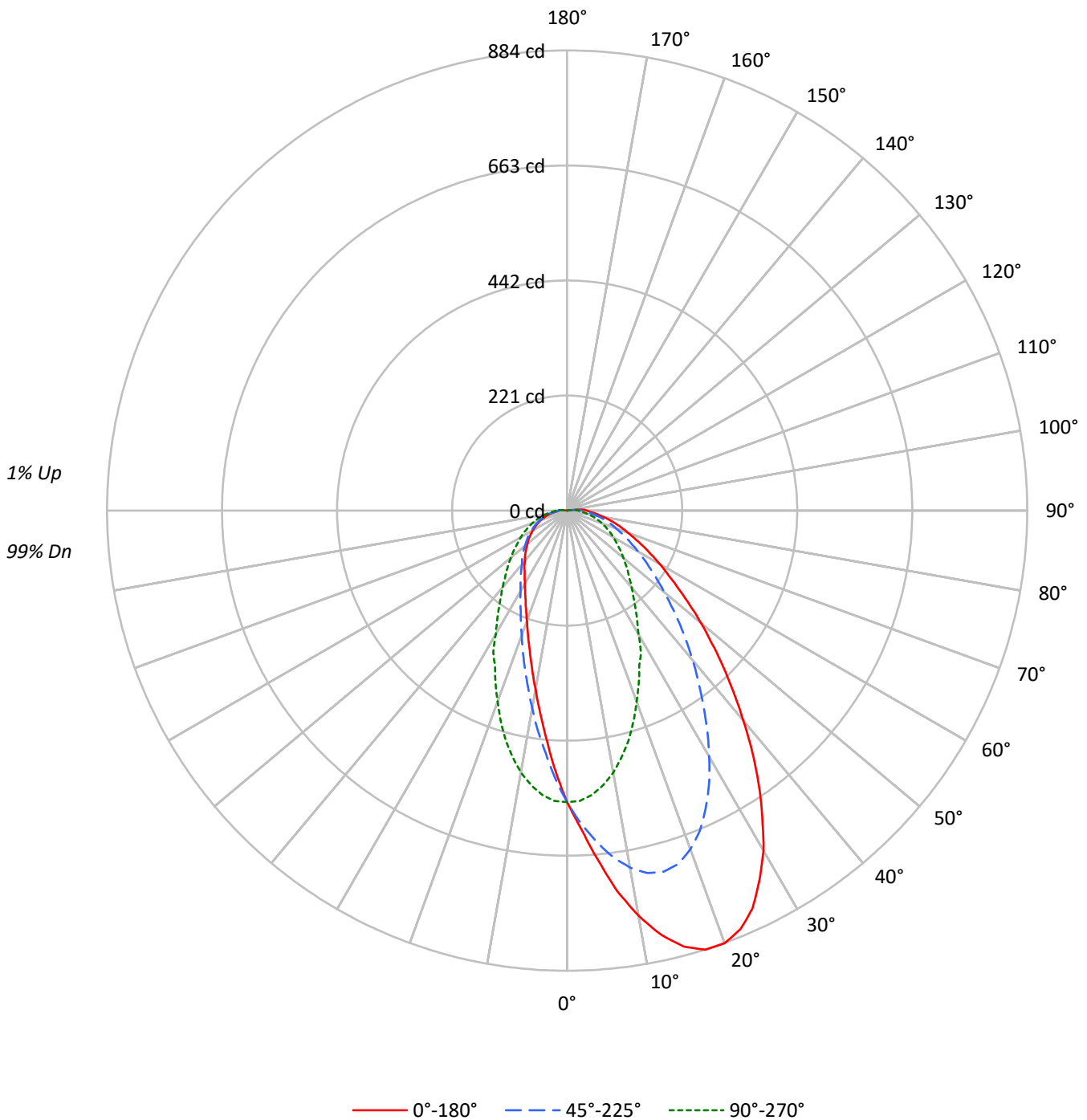
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99								
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	89	87	85	83								
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	76	73	71								
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61								
4	85	73	65	59	82	72	64	58	70	63	58	67	61	57	65	60	56	54								
5	79	66	58	52	76	65	57	51	63	56	51	61	55	50	59	54	50	48								
6	73	61	52	46	71	60	52	46	58	51	45	56	50	45	54	49	44	42								
7	68	55	47	41	66	55	47	41	53	46	41	52	45	41	50	44	40	38								
8	64	51	43	38	62	50	43	37	49	42	37	48	41	37	46	41	37	35								
9	60	47	39	34	59	47	39	34	45	39	34	44	38	34	43	38	33	32								
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	40	35	31	29								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	33421	33421	33421
5°	39380	32107	25994
10°	45746	29586	20189
15°	50022	26323	16003
20°	51230	22595	13049
25°	49406	19221	11064
30°	45087	16379	9699
35°	39437	14045	8755
40°	33558	12297	8022
45°	28225	10991	7510
50°	23655	9930	7010
55°	19682	9060	6624
60°	16792	8396	6230
65°	14458	7747	5812
70°	12529	7182	5427
75°	11128	6519	4887
80°	9763	5677	4196
85°	8703	4920	3512



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.6	4.8
10°-20°	144.5	13.2
20°-30°	193.8	17.7
30°-40°	193.2	17.7
40°-50°	166.1	15.2
50°-60°	131.3	12.0
60°-70°	97.8	8.9
70°-80°	65.7	6.0
80°-90°	36.1	3.3
90°-100°	12.0	1.1
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°	391.0	35.8
0°-40°	584.2	53.4
0°-60°	881.6	80.6
0°-90°	1081.2	98.9
90°-120°	12.0	1.1
90°-150°	12.0	1.1
90°-180°	12.0	1.1
0°-180°	1093.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	560	560	560	560	560	
5°	672	638	548	469	444	68
15°	867	718	456	314	277	244
25°	843	630	328	211	189	384
35°	642	456	229	156	142	400
45°	423	304	165	120	113	328
55°	261	196	120	93	88	236
65°	161	126	86	69	65	160
75°	96	79	56	45	42	102
85°	51	42	29	22	21	46
90°	37	31	22	17	17	21
95°	23	8	15	4	11	11
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°	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9
2.5°	611.2	617.8	616.2	606.2	617.0	616.2	606.2	605.4	600.5	601.3	598.0
5°	672.5	680.0	675.8	666.7	676.6	661.7	655.9	655.1	643.5	637.7	630.3
7.5°	737.1	742.1	737.1	723.9	733.0	712.3	701.5	699.8	681.6	670.8	658.4
10°	790.1	796.7	791.8	772.7	782.7	757.8	754.5	736.3	711.4	696.5	677.5
12.5°	834.8	842.3	838.1	817.4	821.6	791.8	773.5	762.8	733.8	713.1	688.2
15°	867.1	874.6	866.3	844.8	848.1	815.0	793.4	778.5	742.9	718.1	688.2
17.5°	884.5	891.2	882.0	858.9	858.9	824.1	799.2	781.0	740.4	711.4	677.5
20°	884.5	891.2	882.0	857.2	855.5	817.4	791.8	769.4	726.3	692.4	655.9
22.5°	870.4	877.9	866.3	840.6	837.3	798.4	770.2	747.0	701.5	665.9	627.0
25°	843.1	847.3	838.1	811.6	805.8	767.7	738.8	713.9	667.5	630.3	592.2
27.5°	800.0	807.5	796.7	771.1	766.9	727.2	697.4	672.5	625.3	590.5	550.8
30°	754.5	757.8	747.0	722.2	716.4	679.1	650.1	622.8	580.6	545.8	508.5
32.5°	697.4	700.7	690.7	667.5	662.6	627.0	598.8	574.8	533.4	501.1	464.6
35°	641.9	643.5	634.4	612.0	604.6	573.1	546.6	524.3	484.5	455.5	424.0
37.5°	583.9	588.0	576.4	557.4	548.3	522.6	496.1	474.6	438.9	414.1	385.1
40°	526.7	530.1	520.9	501.9	495.3	472.1	448.1	429.8	399.2	375.2	349.5
42.5°	472.9	476.2	468.8	451.4	446.4	423.2	405.0	386.8	360.3	337.9	314.7
45°	423.2	425.7	419.1	405.8	398.4	379.3	362.8	347.0	320.5	304.0	282.4
47.5°	376.8	377.7	371.0	357.0	356.1	337.1	322.2	308.9	286.6	271.7	254.3
50°	335.4	334.6	328.0	320.5	315.5	297.3	285.7	275.0	256.7	243.5	223.6
52.5°	295.7	296.5	290.7	282.4	283.2	265.9	254.3	245.1	229.4	217.8	205.4
55°	260.9	263.4	258.4	250.1	245.1	234.4	225.3	217.8	203.7	195.5	183.9
57.5°	231.1	232.7	229.4	222.0	217.8	207.9	200.4	194.6	182.2	175.6	165.6
60°	205.4	206.2	201.3	196.3	193.8	184.7	183.0	173.1	163.2	157.4	149.1
62.5°	181.4	182.2	179.7	173.1	171.4	164.0	159.0	154.0	145.8	140.8	132.5
65°	160.7	160.7	159.0	153.2	151.6	145.8	140.8	137.5	130.0	125.9	120.9
67.5°	140.8	141.6	139.1	135.8	133.3	129.2	125.1	122.6	115.9	112.6	107.7
70°	124.2	125.1	122.6	120.1	119.3	113.5	111.0	109.3	103.5	100.2	96.9
72.5°	110.2	109.3	107.7	106.0	104.4	101.0	97.7	96.1	91.9	89.4	86.1
75°	96.1	95.2	94.4	91.9	91.1	87.8	86.1	84.5	80.3	78.7	75.4
77.5°	83.6	82.8	82.0	80.3	79.5	76.2	74.5	73.7	70.4	68.7	66.3
80°	71.2	71.2	70.4	68.7	68.7	66.3	64.6	63.8	60.5	58.8	57.1
82.5°	60.5	60.5	59.6	58.8	58.0	56.3	54.7	53.8	51.3	49.7	48.0
85°	51.3	51.3	50.5	49.7	48.9	47.2	45.6	44.7	43.1	42.2	40.6
87.5°	43.1	43.1	42.2	41.4	40.6	39.8	38.9	38.1	36.4	35.6	34.0
90°	37.3	37.3	36.4	35.6	35.6	34.8	33.1	33.1	31.5	30.6	29.8
92.5°	34.0	34.0	34.0	32.3	31.5	29.8	28.2	25.7	23.2	22.4	22.4
95°	23.2	24.0	23.2	22.4	19.9	17.4	14.1	12.4	8.3	8.3	7.5
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°	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9
2.5°	586.4	591.3	583.1	571.5	578.9	570.6	564.8	558.2	548.3	551.6	537.5
5°	614.5	614.5	599.6	583.1	584.7	571.5	559.9	548.3	532.5	530.1	513.5
7.5°	636.1	631.1	610.4	588.0	585.5	564.8	549.1	531.7	512.7	505.2	485.3
10°	663.4	638.5	612.0	584.7	575.6	552.4	543.3	511.0	487.8	477.9	454.7
12.5°	654.3	637.7	606.2	573.9	561.5	532.5	508.5	484.5	459.7	445.6	422.4
15°	648.5	627.8	591.3	556.6	540.0	509.3	482.0	456.3	428.2	413.3	390.1
17.5°	635.2	609.6	570.6	532.5	512.7	479.5	451.4	424.0	395.9	381.0	357.0
20°	611.2	582.2	542.5	502.7	480.4	447.2	419.1	390.1	364.4	347.0	324.7
22.5°	583.1	550.8	509.3	467.1	447.2	413.3	386.8	359.4	332.9	316.4	295.7
25°	546.6	515.1	474.6	434.0	412.4	379.3	353.6	328.0	304.0	289.0	268.3
27.5°	507.7	476.2	437.3	400.0	378.5	347.0	322.2	307.3	278.3	263.4	245.1
30°	467.1	434.8	400.0	364.4	345.4	316.4	293.2	274.1	252.6	240.2	224.4
32.5°	426.5	399.2	366.1	332.1	314.7	289.0	267.5	250.1	231.9	220.3	206.2
35°	389.3	361.9	332.9	302.3	287.4	262.5	244.3	228.6	211.2	202.1	190.5
37.5°	352.8	329.6	302.3	275.8	260.9	239.4	223.6	208.7	194.6	186.3	175.6
40°	319.7	299.0	275.8	250.9	239.4	219.5	206.2	193.0	179.7	172.3	163.2
42.5°	295.7	270.8	250.1	227.8	218.6	201.3	189.7	177.2	165.6	159.0	151.6
45°	261.7	244.3	226.9	207.9	198.8	184.7	173.9	164.8	154.0	148.2	141.6
47.5°	236.0	221.1	207.1	189.7	182.2	170.6	163.2	152.4	143.3	137.5	132.5
50°	212.0	200.4	188.0	173.1	167.3	156.5	147.4	140.8	132.5	128.4	123.4
52.5°	192.1	181.4	170.6	158.2	153.2	144.1	136.7	130.9	123.4	119.3	114.3
55°	172.3	164.0	155.7	144.1	140.8	132.5	125.9	120.1	114.3	111.0	106.0
57.5°	155.7	149.1	141.6	131.7	129.2	121.7	115.9	111.0	106.0	102.7	98.6
60°	140.8	135.0	129.2	120.9	118.4	111.8	106.8	102.7	97.7	95.2	91.9
62.5°	127.5	122.6	116.8	109.3	107.7	102.7	97.7	94.4	90.3	87.8	84.5
65°	115.1	111.0	106.0	99.4	98.6	93.6	89.4	86.1	82.8	80.3	77.9
67.5°	103.5	99.4	96.1	90.3	88.6	84.5	81.2	78.7	75.4	73.7	71.2
70°	92.8	89.4	86.1	81.2	80.3	77.9	73.7	71.2	67.9	66.3	64.6
72.5°	82.0	79.5	76.2	72.9	71.2	68.7	65.4	63.8	61.3	60.5	58.8
75°	72.1	69.6	67.9	63.8	62.9	60.5	58.0	56.3	53.8	52.2	50.5
77.5°	62.9	61.3	59.6	55.5	54.7	53.0	50.5	48.9	47.2	45.6	43.9
80°	54.7	53.0	51.3	48.0	47.2	45.6	43.1	41.4	39.8	38.9	38.1
82.5°	46.4	44.7	43.1	40.6	39.8	38.1	36.4	34.8	33.1	32.3	31.5
85°	38.9	37.3	36.4	34.0	33.1	31.5	29.8	29.0	27.3	26.5	25.7
87.5°	33.1	31.5	30.6	28.2	28.2	26.5	24.8	24.0	23.2	22.4	21.5
90°	28.2	27.3	26.5	24.8	24.0	23.2	22.4	21.5	20.7	19.9	19.0
92.5°	22.4	22.4	22.4	21.5	22.4	21.5	20.7	19.9	19.0	18.2	17.4
95°	9.9	10.8	12.4	13.3	14.9	15.7	14.9	14.9	14.1	13.3	11.6
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: P130194

CATALOG NUMBER: HL612ICAT - HLM6930 - HL6FL - ERT702

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: P130194

CATALOG NUMBER: HL612ICAT - HLM6930 - HL6FL - ERT702

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9	559.9
2.5°	538.3	541.6	533.4	534.2	524.3	516.0	512.7	514.3	505.2	511.8	513.5
5°	510.2	508.5	497.8	493.6	481.2	468.8	462.1	463.0	455.5	458.0	458.0
7.5°	478.7	473.7	458.8	453.9	438.9	427.4	418.2	415.8	408.3	407.5	407.5
10°	443.1	437.3	422.4	414.1	397.5	385.9	376.0	372.7	359.4	362.8	361.1
12.5°	410.0	405.0	385.9	376.8	359.4	347.0	337.9	334.6	326.3	323.8	323.0
15°	375.2	367.7	349.5	332.1	327.1	313.9	304.0	299.0	292.4	291.5	288.2
17.5°	342.9	333.8	317.2	308.1	291.5	282.4	274.1	269.2	263.4	262.5	260.1
20°	311.4	302.3	288.2	278.3	265.9	255.1	247.6	243.5	238.5	236.0	234.4
22.5°	284.1	275.0	260.9	253.4	241.8	231.9	225.3	222.0	217.0	216.2	213.7
25°	256.7	250.1	237.7	231.1	220.3	211.2	206.2	203.7	198.8	197.1	196.3
27.5°	235.2	228.6	217.8	211.2	201.3	194.6	189.7	188.0	183.9	183.0	181.4
30°	215.3	209.5	199.6	194.6	185.5	178.9	174.8	173.9	169.0	169.8	167.3
32.5°	198.8	193.8	184.7	179.7	173.1	166.5	163.2	161.5	158.2	158.2	156.5
35°	183.0	179.7	171.4	167.3	160.7	155.7	152.4	150.7	148.2	148.2	146.6
37.5°	169.0	165.6	159.8	155.7	149.9	144.9	142.5	140.8	139.1	138.3	137.5
40°	157.4	154.9	149.1	145.8	140.0	135.0	133.3	132.5	130.9	130.0	129.2
42.5°	146.6	144.9	140.0	136.7	131.7	128.4	125.9	125.1	122.6	122.6	122.6
45°	136.7	135.0	130.9	127.5	123.4	120.1	118.4	116.8	115.9	115.1	115.1
47.5°	127.5	126.7	122.6	120.1	115.9	113.5	111.0	110.2	108.5	108.5	107.7
50°	119.3	118.4	115.1	112.6	108.5	106.0	104.4	103.5	101.9	101.9	101.0
52.5°	111.8	110.2	107.7	105.2	101.9	99.4	97.7	96.9	96.1	96.1	95.2
55°	104.4	103.5	100.2	97.7	95.2	92.8	91.1	91.1	89.4	89.4	88.6
57.5°	96.9	96.1	93.6	91.1	88.6	87.0	85.3	84.5	83.6	83.6	82.8
60°	89.4	89.4	86.1	84.5	82.0	80.3	79.5	78.7	77.9	77.0	77.0
62.5°	80.3	82.0	80.3	77.9	76.2	74.5	72.9	72.9	72.1	71.2	71.2
65°	76.2	75.4	73.7	72.1	69.6	68.7	67.1	66.3	66.3	66.3	64.6
67.5°	67.9	68.7	67.1	65.4	63.8	62.1	61.3	60.5	59.6	59.6	59.6
70°	62.9	62.9	61.3	59.6	58.0	56.3	55.5	54.7	53.8	53.8	53.8
72.5°	56.3	56.3	54.7	53.0	51.3	50.5	49.7	48.9	48.9	48.0	48.0
75°	49.7	48.9	48.0	47.2	45.6	44.7	43.9	43.1	43.1	42.2	42.2
77.5°	43.1	42.2	41.4	40.6	38.9	38.9	37.3	37.3	37.3	36.4	36.4
80°	36.4	36.4	34.8	34.0	33.1	32.3	32.3	31.5	31.5	30.6	30.6
82.5°	29.8	29.8	29.0	28.2	27.3	26.5	26.5	25.7	25.7	25.7	24.8
85°	24.8	24.0	23.2	23.2	22.4	21.5	21.5	20.7	20.7	20.7	20.7
87.5°	20.7	20.7	19.9	19.0	18.2	18.2	18.2	17.4	17.4	17.4	17.4
90°	18.2	18.2	17.4	17.4	16.6	16.6	16.6	15.7	15.7	15.7	15.7
92.5°	16.6	15.7	14.9	13.3	12.4	11.6	12.4	12.4	13.3	14.1	14.1
95°	10.8	9.1	6.6	5.0	4.1	4.1	4.1	5.0	6.6	7.5	9.1
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



TEST NUMBER: P130194

CATALOG NUMBER: HL612ICAT - HLM6930 - HL6FL - ERT702

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: P130194

CATALOG NUMBER: HL612ICAT - HLM6930 - HL6FL - ERT702

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	559.9	559.9	559.9	559.9
2.5°	505.2	505.2	509.3	501.9
5°	449.7	449.7	452.2	443.9
7.5°	401.7	399.2	399.2	393.4
10°	354.5	353.6	353.6	348.7
12.5°	316.4	315.5	317.2	311.4
15°	281.6	282.4	283.2	277.4
17.5°	254.3	254.3	252.6	250.1
20°	230.2	230.2	228.6	225.3
22.5°	209.5	210.4	210.4	206.2
25°	193.0	193.0	193.0	188.8
27.5°	178.1	178.1	178.9	174.8
30°	165.6	165.6	165.6	162.3
32.5°	154.9	154.9	154.9	151.6
35°	145.8	145.8	144.9	142.5
37.5°	136.7	136.7	135.8	135.0
40°	128.4	128.4	128.4	125.9
42.5°	121.7	121.7	120.9	120.1
45°	114.3	114.3	113.5	112.6
47.5°	107.7	106.8	106.8	106.0
50°	101.0	101.0	100.2	99.4
52.5°	95.2	95.2	94.4	94.4
55°	89.4	88.6	88.6	87.8
57.5°	82.8	82.8	82.8	82.0
60°	77.0	77.0	76.2	76.2
62.5°	71.2	71.2	70.4	70.4
65°	65.4	65.4	64.6	64.6
67.5°	59.6	59.6	58.8	58.8
70°	53.8	53.8	53.0	53.8
72.5°	48.0	48.0	47.2	48.0
75°	42.2	42.2	42.2	42.2
77.5°	36.4	36.4	36.4	36.4
80°	30.6	30.6	30.6	30.6
82.5°	25.7	25.7	24.8	25.7
85°	20.7	20.7	20.7	20.7
87.5°	17.4	17.4	17.4	17.4
90°	15.7	15.7	15.7	16.6
92.5°	14.1	14.9	14.9	14.9
95°	9.9	9.9	9.9	10.8
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: P130194

CATALOG NUMBER: HL612ICAT - HLM6930 - HL6FL - ERT702

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)