

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: P130196

Luminaire Tested: **HL612ICAT - HLM6940 - HL6FL - ERT702**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130196
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 - HLM6940 - 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 / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1223.9 lumens
Efficiency: N/A
Efficacy: 64.1 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

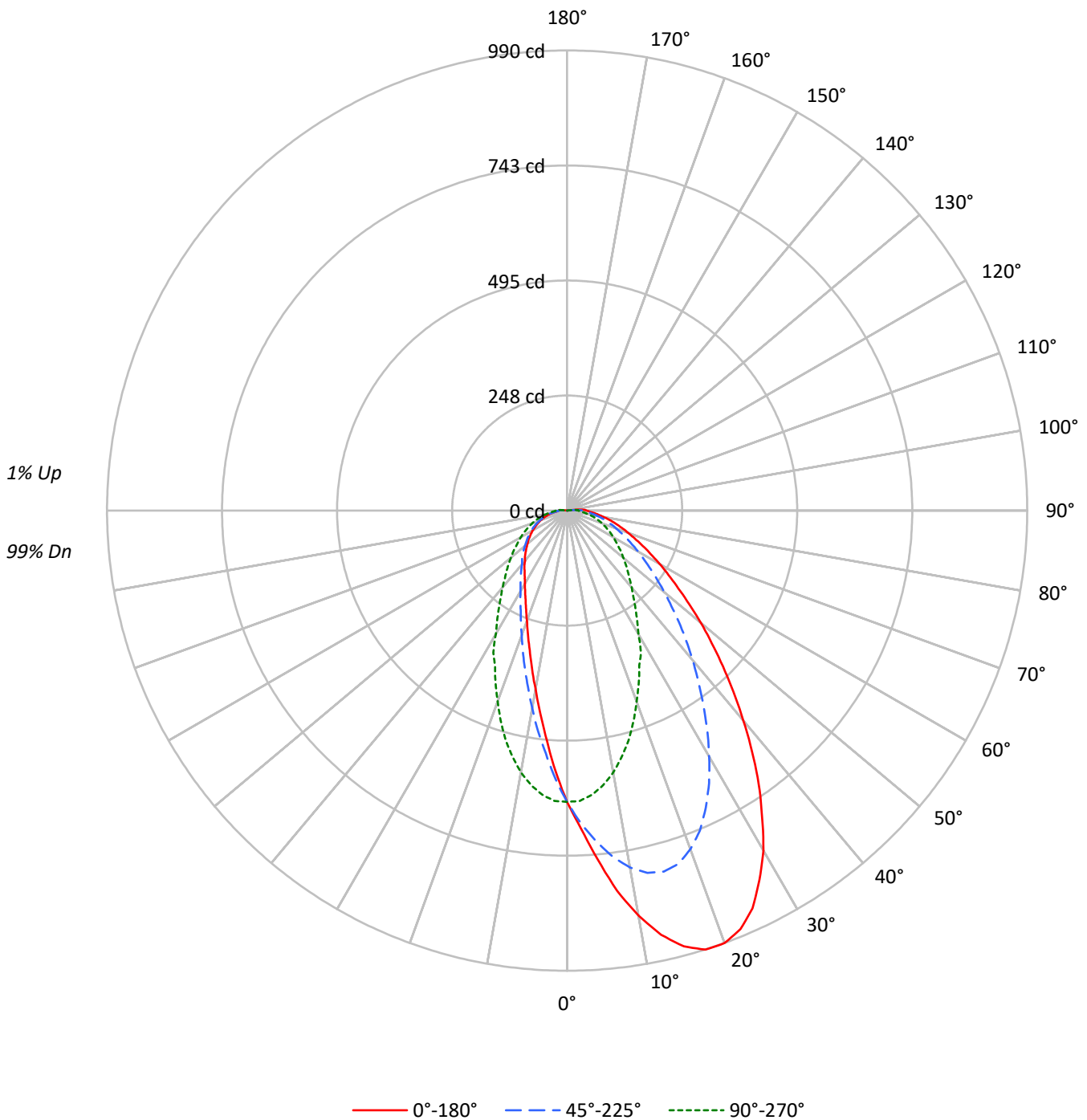
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	37414	37414	37414
5°	44088	35943	29103
10°	51217	33124	22604
15°	56004	29473	17918
20°	57358	25294	14607
25°	55313	21518	12388
30°	50477	18340	10858
35°	44149	15722	9799
40°	37572	13762	8977
45°	31599	12305	8410
50°	26483	11115	7850
55°	22036	10147	7416
60°	18804	9402	6974
65°	16186	8673	6505
70°	14032	8040	6083
75°	12460	7307	5477
80°	10928	6362	4703
85°	9754	5513	3936



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.9	4.8
10°-20°	161.8	13.2
20°-30°	216.9	17.7
30°-40°	216.3	17.7
40°-50°	185.9	15.2
50°-60°	147.0	12.0
60°-70°	109.5	8.9
70°-80°	73.5	6.0
80°-90°	40.4	3.3
90°-100°	13.4	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°	437.7	35.8
0°-40°	654.0	53.4
0°-60°	987.0	80.6
0°-90°	1210.5	98.9
90°-120°	13.4	1.1
90°-150°	13.4	1.1
90°-180°	13.0	1.1
0°-180°	1223.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	627	627	627	627	627	
5°	753	714	614	525	497	76
15°	971	804	511	351	311	273
25°	944	706	367	236	211	430
35°	719	510	256	174	160	448
45°	474	340	184	134	126	367
55°	292	219	134	104	98	264
65°	180	141	96	77	72	179
75°	108	88	63	50	47	115
85°	58	47	32	24	23	51
90°	42	34	24	18	18	23
95°	26	9	17	5	12	12
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°	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8
2.5°	684.3	691.7	689.9	678.7	690.8	689.9	678.7	677.8	672.3	673.2	669.5
5°	752.9	761.3	756.6	746.4	757.6	740.9	734.4	733.5	720.5	714.0	705.6
7.5°	825.3	830.8	825.3	810.4	820.6	797.4	785.4	783.5	763.1	751.1	737.2
10°	884.6	892.0	886.5	865.1	876.3	848.4	844.7	824.3	796.5	779.8	758.5
12.5°	934.7	943.0	938.4	915.2	919.8	886.5	866.1	854.0	821.5	798.4	770.5
15°	970.8	979.2	969.9	945.8	949.5	912.4	888.3	871.6	831.7	803.9	770.5
17.5°	990.3	997.7	987.5	961.6	961.6	922.6	894.8	874.4	829.0	796.5	758.5
20°	990.3	997.7	987.5	959.7	957.8	915.2	886.5	861.4	813.2	775.2	734.4
22.5°	974.5	982.9	969.9	941.2	937.4	893.9	862.3	836.4	785.4	745.5	701.9
25°	943.9	948.6	938.4	908.7	902.2	859.6	827.1	799.3	747.4	705.6	663.0
27.5°	895.7	904.1	892.0	863.3	858.6	814.1	780.7	752.9	700.1	661.1	616.6
30°	844.7	848.4	836.4	808.6	802.1	760.3	727.9	697.3	650.0	611.1	569.3
32.5°	780.7	784.5	773.3	747.4	741.8	701.9	670.4	643.5	597.1	561.0	520.2
35°	718.6	720.5	710.3	685.2	676.9	641.7	612.0	586.9	542.4	510.0	474.8
37.5°	653.7	658.3	645.4	624.0	613.8	585.1	555.4	531.3	491.4	463.6	431.2
40°	589.7	593.4	583.2	561.9	554.5	528.5	501.6	481.2	446.9	420.0	391.3
42.5°	529.5	533.2	524.8	505.4	499.8	473.8	453.4	433.0	403.4	378.3	352.4
45°	473.8	476.6	469.2	454.4	446.0	424.7	406.1	388.5	358.8	340.3	316.2
47.5°	421.9	422.8	415.4	399.6	398.7	377.4	360.7	345.9	320.8	304.1	284.7
50°	375.5	374.6	367.2	358.8	353.3	332.9	319.9	307.8	287.4	272.6	250.4
52.5°	331.0	332.0	325.5	316.2	317.1	297.6	284.7	274.5	256.8	243.9	230.0
55°	292.1	294.9	289.3	280.0	274.5	262.4	252.2	243.9	228.1	218.8	205.8
57.5°	258.7	260.6	256.8	248.5	243.9	232.7	224.4	217.9	204.0	196.6	185.4
60°	230.0	230.9	225.3	219.8	217.0	206.8	204.9	193.8	182.7	176.2	166.9
62.5°	203.1	204.0	201.2	193.8	191.9	183.6	178.0	172.5	163.2	157.6	148.4
65°	179.9	179.9	178.0	171.5	169.7	163.2	157.6	153.9	145.6	140.9	135.4
67.5°	157.6	158.6	155.8	152.1	149.3	144.7	140.0	137.2	129.8	126.1	120.5
70°	139.1	140.0	137.2	134.5	133.5	127.0	124.3	122.4	115.9	112.2	108.5
72.5°	123.3	122.4	120.5	118.7	116.8	113.1	109.4	107.6	102.9	100.1	96.4
75°	107.6	106.6	105.7	102.9	102.0	98.3	96.4	94.6	89.9	88.1	84.4
77.5°	93.7	92.7	91.8	89.9	89.0	85.3	83.5	82.5	78.8	77.0	74.2
80°	79.7	79.7	78.8	77.0	77.0	74.2	72.3	71.4	67.7	65.8	64.0
82.5°	67.7	67.7	66.8	65.8	64.9	63.1	61.2	60.3	57.5	55.6	53.8
85°	57.5	57.5	56.6	55.6	54.7	52.9	51.0	50.1	48.2	47.3	45.4
87.5°	48.2	48.2	47.3	46.4	45.4	44.5	43.6	42.7	40.8	39.9	38.0
90°	41.7	41.7	40.8	39.9	39.9	38.9	37.1	37.1	35.2	34.3	33.4
92.5°	38.0	38.0	38.0	36.2	35.2	33.4	31.5	28.7	26.0	25.0	25.0
95°	26.0	26.9	26.0	25.0	22.3	19.5	15.8	13.9	9.3	9.3	8.3
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°	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8
2.5°	656.5	662.1	652.8	639.8	648.1	638.9	632.4	625.0	613.8	617.5	601.8
5°	688.0	688.0	671.3	652.8	654.6	639.8	626.8	613.8	596.2	593.4	574.9
7.5°	712.1	706.6	683.4	658.3	655.6	632.4	614.8	595.3	574.0	565.6	543.4
10°	742.7	714.9	685.2	654.6	644.4	618.5	608.3	572.1	546.2	535.0	509.1
12.5°	732.5	714.0	678.7	642.6	628.7	596.2	569.3	542.4	514.6	498.9	472.9
15°	726.0	702.9	662.1	623.1	604.6	570.3	539.7	510.9	479.4	462.7	436.7
17.5°	711.2	682.5	638.9	596.2	574.0	536.9	505.4	474.8	443.2	426.5	399.6
20°	684.3	651.9	607.3	562.8	537.8	500.7	469.2	436.7	408.0	388.5	363.5
22.5°	652.8	616.6	570.3	523.0	500.7	462.7	433.0	402.4	372.8	354.2	331.0
25°	612.0	576.7	531.3	485.9	461.8	424.7	395.9	367.2	340.3	323.6	300.4
27.5°	568.4	533.2	489.6	447.9	423.8	388.5	360.7	344.0	311.6	294.9	274.5
30°	523.0	486.8	447.9	408.0	386.7	354.2	328.2	306.9	282.8	268.9	251.3
32.5°	477.5	446.9	409.8	371.8	352.4	323.6	299.5	280.0	259.6	246.6	230.9
35°	435.8	405.2	372.8	338.4	321.8	293.9	273.5	255.9	236.4	226.2	213.3
37.5°	395.0	369.0	338.4	308.8	292.1	268.0	250.4	233.7	217.9	208.6	196.6
40°	357.9	334.7	308.8	281.0	268.0	245.7	230.9	216.0	201.2	192.9	182.7
42.5°	331.0	303.2	280.0	255.0	244.8	225.3	212.3	198.4	185.4	178.0	169.7
45°	293.0	273.5	254.1	232.7	222.5	206.8	194.7	184.5	172.5	166.0	158.6
47.5°	264.3	247.6	231.8	212.3	204.0	191.0	182.7	170.6	160.4	153.9	148.4
50°	237.4	224.4	210.5	193.8	187.3	175.3	165.1	157.6	148.4	143.7	138.2
52.5°	215.1	203.1	191.0	177.1	171.5	161.3	153.0	146.5	138.2	133.5	128.0
55°	192.9	183.6	174.3	161.3	157.6	148.4	140.9	134.5	128.0	124.3	118.7
57.5°	174.3	166.9	158.6	147.4	144.7	136.3	129.8	124.3	118.7	115.0	110.3
60°	157.6	151.1	144.7	135.4	132.6	125.2	119.6	115.0	109.4	106.6	102.9
62.5°	142.8	137.2	130.7	122.4	120.5	115.0	109.4	105.7	101.1	98.3	94.6
65°	128.9	124.3	118.7	111.3	110.3	104.8	100.1	96.4	92.7	89.9	87.2
67.5°	115.9	111.3	107.6	101.1	99.2	94.6	90.9	88.1	84.4	82.5	79.7
70°	103.9	100.1	96.4	90.9	89.9	87.2	82.5	79.7	76.0	74.2	72.3
72.5°	91.8	89.0	85.3	81.6	79.7	77.0	73.3	71.4	68.6	67.7	65.8
75°	80.7	77.9	76.0	71.4	70.5	67.7	64.9	63.1	60.3	58.4	56.6
77.5°	70.5	68.6	66.8	62.1	61.2	59.3	56.6	54.7	52.9	51.0	49.1
80°	61.2	59.3	57.5	53.8	52.9	51.0	48.2	46.4	44.5	43.6	42.7
82.5°	51.9	50.1	48.2	45.4	44.5	42.7	40.8	38.9	37.1	36.2	35.2
85°	43.6	41.7	40.8	38.0	37.1	35.2	33.4	32.5	30.6	29.7	28.7
87.5°	37.1	35.2	34.3	31.5	31.5	29.7	27.8	26.9	26.0	25.0	24.1
90°	31.5	30.6	29.7	27.8	26.9	26.0	25.0	24.1	23.2	22.3	21.3
92.5°	25.0	25.0	25.0	24.1	25.0	24.1	23.2	22.3	21.3	20.4	19.5
95°	11.1	12.1	13.9	14.8	16.7	17.6	16.7	16.7	15.8	14.8	13.0
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: P130196

CATALOG NUMBER: HL612ICAT - HLM6940 - 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: P130196

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6FL - ERT702

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8	626.8
2.5°	602.7	606.4	597.1	598.1	586.9	577.7	574.0	575.8	565.6	573.0	574.9
5°	571.2	569.3	557.3	552.6	538.7	524.8	517.4	518.3	510.0	512.8	512.8
7.5°	536.0	530.4	513.7	508.1	491.4	478.5	468.3	465.5	457.1	456.2	456.2
10°	496.1	489.6	472.9	463.6	445.1	432.1	421.0	417.3	402.4	406.1	404.3
12.5°	459.0	453.4	432.1	421.9	402.4	388.5	378.3	374.6	365.3	362.6	361.6
15°	420.0	411.7	391.3	371.8	366.3	351.4	340.3	334.7	327.3	326.4	322.7
17.5°	383.9	373.7	355.1	344.9	326.4	316.2	306.9	301.4	294.9	293.9	291.2
20°	348.6	338.4	322.7	311.6	297.6	285.6	277.2	272.6	267.0	264.3	262.4
22.5°	318.0	307.8	292.1	283.7	270.8	259.6	252.2	248.5	242.9	242.0	239.2
25°	287.4	280.0	266.1	258.7	246.6	236.4	230.9	228.1	222.5	220.7	219.8
27.5°	263.3	255.9	243.9	236.4	225.3	217.9	212.3	210.5	205.8	204.9	203.1
30°	241.1	234.6	223.5	217.9	207.7	200.3	195.6	194.7	189.2	190.1	187.3
32.5°	222.5	217.0	206.8	201.2	193.8	186.4	182.7	180.8	177.1	177.1	175.3
35°	204.9	201.2	191.9	187.3	179.9	174.3	170.6	168.8	166.0	166.0	164.1
37.5°	189.2	185.4	179.0	174.3	167.8	162.3	159.5	157.6	155.8	154.9	153.9
40°	176.2	173.4	166.9	163.2	156.7	151.1	149.3	148.4	146.5	145.6	144.7
42.5°	164.1	162.3	156.7	153.0	147.4	143.7	140.9	140.0	137.2	137.2	137.2
45°	153.0	151.1	146.5	142.8	138.2	134.5	132.6	130.7	129.8	128.9	128.9
47.5°	142.8	141.9	137.2	134.5	129.8	127.0	124.3	123.3	121.5	121.5	120.5
50°	133.5	132.6	128.9	126.1	121.5	118.7	116.8	115.9	114.1	114.1	113.1
52.5°	125.2	123.3	120.5	117.8	114.1	111.3	109.4	108.5	107.6	107.6	106.6
55°	116.8	115.9	112.2	109.4	106.6	103.9	102.0	102.0	100.1	100.1	99.2
57.5°	108.5	107.6	104.8	102.0	99.2	97.4	95.5	94.6	93.7	93.7	92.7
60°	100.1	100.1	96.4	94.6	91.8	89.9	89.0	88.1	87.2	86.2	86.2
62.5°	89.9	91.8	89.9	87.2	85.3	83.5	81.6	81.6	80.7	79.7	79.7
65°	85.3	84.4	82.5	80.7	77.9	77.0	75.1	74.2	74.2	74.2	72.3
67.5°	76.0	77.0	75.1	73.3	71.4	69.5	68.6	67.7	66.8	66.8	66.8
70°	70.5	70.5	68.6	66.8	64.9	63.1	62.1	61.2	60.3	60.3	60.3
72.5°	63.1	63.1	61.2	59.3	57.5	56.6	55.6	54.7	54.7	53.8	53.8
75°	55.6	54.7	53.8	52.9	51.0	50.1	49.1	48.2	48.2	47.3	47.3
77.5°	48.2	47.3	46.4	45.4	43.6	43.6	41.7	41.7	41.7	40.8	40.8
80°	40.8	40.8	38.9	38.0	37.1	36.2	36.2	35.2	35.2	34.3	34.3
82.5°	33.4	33.4	32.5	31.5	30.6	29.7	29.7	28.7	28.7	28.7	27.8
85°	27.8	26.9	26.0	26.0	25.0	24.1	24.1	23.2	23.2	23.2	23.2
87.5°	23.2	23.2	22.3	21.3	20.4	20.4	20.4	19.5	19.5	19.5	19.5
90°	20.4	20.4	19.5	19.5	18.5	18.5	18.5	17.6	17.6	17.6	17.6
92.5°	18.5	17.6	16.7	14.8	13.9	13.0	13.9	13.9	14.8	15.8	15.8
95°	12.1	10.2	7.4	5.6	4.6	4.6	4.6	5.6	7.4	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: P130196

CATALOG NUMBER: HL612ICAT - HLM6940 - 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: P130196

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6FL - ERT702

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	626.8	626.8	626.8	626.8
2.5°	565.6	565.6	570.3	561.9
5°	503.5	503.5	506.3	497.0
7.5°	449.7	446.9	446.9	440.4
10°	396.9	395.9	395.9	390.4
12.5°	354.2	353.3	355.1	348.6
15°	315.3	316.2	317.1	310.6
17.5°	284.7	284.7	282.8	280.0
20°	257.8	257.8	255.9	252.2
22.5°	234.6	235.5	235.5	230.9
25°	216.0	216.0	216.0	211.4
27.5°	199.4	199.4	200.3	195.6
30°	185.4	185.4	185.4	181.7
32.5°	173.4	173.4	173.4	169.7
35°	163.2	163.2	162.3	159.5
37.5°	153.0	153.0	152.1	151.1
40°	143.7	143.7	143.7	140.9
42.5°	136.3	136.3	135.4	134.5
45°	128.0	128.0	127.0	126.1
47.5°	120.5	119.6	119.6	118.7
50°	113.1	113.1	112.2	111.3
52.5°	106.6	106.6	105.7	105.7
55°	100.1	99.2	99.2	98.3
57.5°	92.7	92.7	92.7	91.8
60°	86.2	86.2	85.3	85.3
62.5°	79.7	79.7	78.8	78.8
65°	73.3	73.3	72.3	72.3
67.5°	66.8	66.8	65.8	65.8
70°	60.3	60.3	59.3	60.3
72.5°	53.8	53.8	52.9	53.8
75°	47.3	47.3	47.3	47.3
77.5°	40.8	40.8	40.8	40.8
80°	34.3	34.3	34.3	34.3
82.5°	28.7	28.7	27.8	28.7
85°	23.2	23.2	23.2	23.2
87.5°	19.5	19.5	19.5	19.5
90°	17.6	17.6	17.6	18.5
92.5°	15.8	16.7	16.7	16.7
95°	11.1	11.1	11.1	12.1
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: P130196

CATALOG NUMBER: HL612ICAT - HLM6940 - 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)