

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: P130233

Luminaire Tested: **HL612ICAT - HLM6940 - HL6NFL - ERT702**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P130233  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33479)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HL612ICAT - HLM6940 - HL6NFL - ERT702  
Description: HALO ALLSLOPE 6" 21W, Drop Opal Plastic Lens, White Polymer Trim Ring "Dead Front", Wet Location - Showerlight using 25 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: 1211.8 lumens  
Efficiency: N/A  
Efficacy: 63.4 lumens/watt  
Spacing Criteria (0/90/45): 1.5 / 0.84 / 1.15  
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')  
CIE Type: Direct

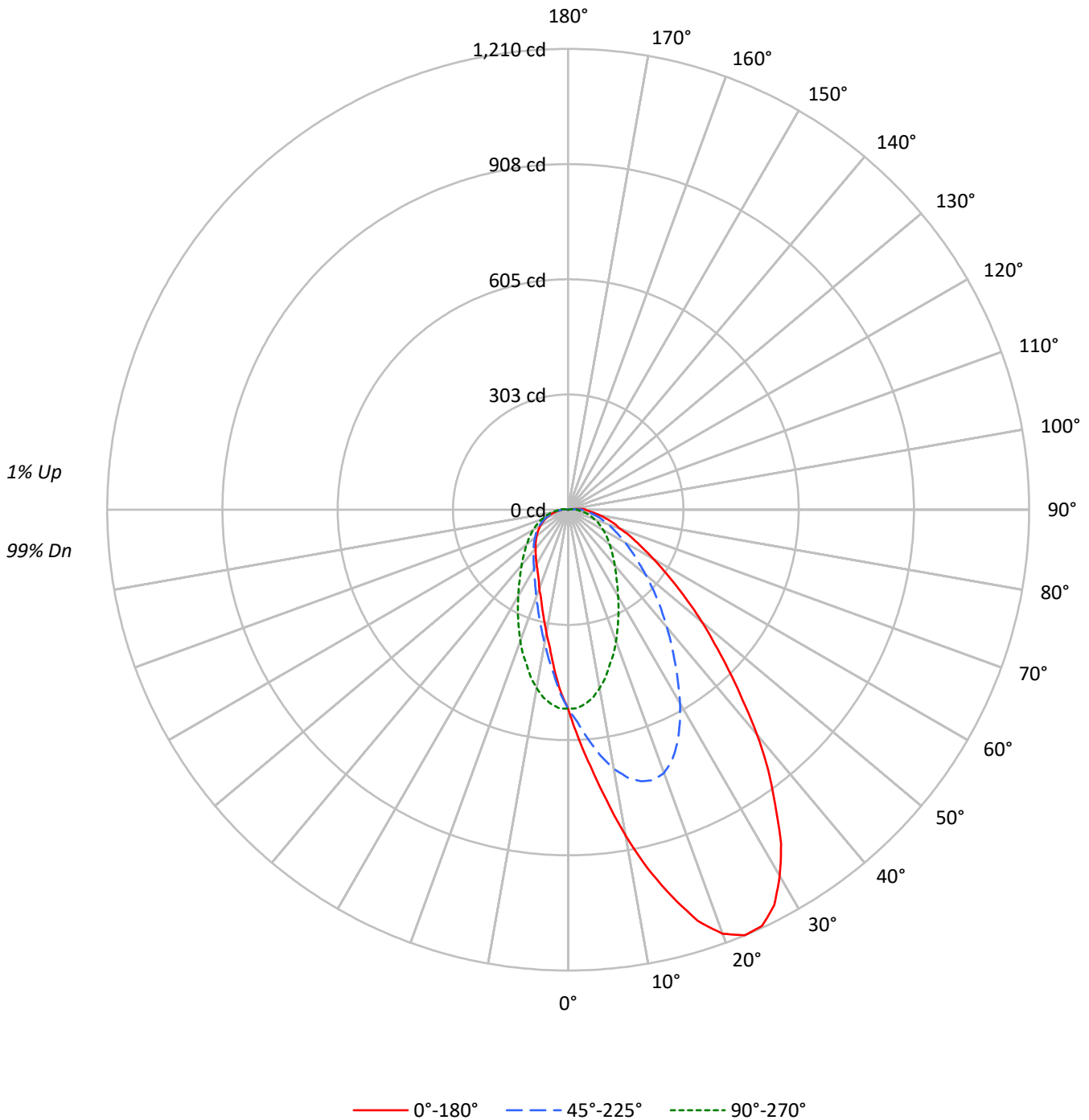
Input Watts (W): 19.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	106	106	101	101	101	99
1	109	104	100	96	106	102	98	94	97	94	91	93	90	88	89	87	85	83
2	100	92	85	80	97	90	84	79	86	81	77	83	78	75	79	76	73	71
3	91	81	74	67	89	80	73	67	77	71	65	74	69	64	71	67	63	61
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	64	59	55	53
5	78	66	57	51	76	65	57	51	63	55	50	60	54	49	59	53	49	47
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42
7	68	55	46	41	66	54	46	40	52	45	40	51	44	40	49	44	39	37
8	63	50	42	37	62	50	42	36	48	41	36	47	41	36	46	40	36	34
9	59	46	39	33	58	46	38	33	45	38	33	43	37	33	42	37	32	31
10	56	43	35	30	54	43	35	30	41	35	30	40	34	30	40	34	30	28

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

	0°	90°	180°
0°	31170	31170	31170
5°	39649	29976	24536
10°	50308	27542	18979
15°	60596	24270	15236
20°	68612	21274	12806
25°	70631	18248	10988
30°	66366	15627	9920
35°	58194	13584	9093
40°	49111	12112	8493
45°	39763	10904	8030
50°	32337	10008	7645
55°	25898	9279	7272
60°	21101	8650	6892
65°	17490	8052	6505
70°	14496	7374	6073
75°	13154	6878	5477
80°	11559	6019	4717
85°	10077	5259	4088



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.2	4.1
10°-20°	148.8	12.3
20°-30°	216.4	17.9
30°-40°	221.9	18.3
40°-50°	189.8	15.7
50°-60°	148.1	12.2
60°-70°	109.4	9.0
70°-80°	73.4	6.1
80°-90°	40.4	3.3
90°-100°	13.5	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°	415.5	34.3
0°-40°	637.4	52.6
0°-60°	975.2	80.5
0°-90°	1198.3	98.9
90°-120°	13.5	1.1
90°-150°	13.5	1.1
90°-180°	14.0	1.2
0°-180°	1211.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	522	522	522	522	522	
5°	677	606	512	434	419	70
15°	1050	738	421	293	264	301
25°	1205	677	311	206	188	547
35°	947	488	221	158	148	591
45°	596	330	164	127	120	463
55°	343	213	123	102	96	311
65°	194	138	90	76	72	195
75°	114	87	59	49	47	120
85°	59	47	31	24	24	54
90°	45	35	22	18	17	25
95°	27	8	16	5	11	13
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°	522.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2
2.5°	597.9	575.5	586.7	581.6	581.6	579.0	571.2	579.8	573.0	558.3	558.3
5°	677.1	658.1	668.5	656.4	654.7	649.5	636.6	640.1	627.2	605.7	601.4
7.5°	768.2	743.3	752.8	739.0	733.8	723.5	703.7	701.1	679.6	651.2	638.3
10°	868.9	836.2	846.5	825.9	818.1	802.7	768.2	760.5	727.8	690.8	669.3
12.5°	965.3	932.6	937.7	914.5	896.4	872.3	830.2	812.1	770.8	720.1	690.8
15°	1050.4	1021.2	1025.5	992.8	967.8	931.7	879.2	852.6	800.1	738.1	701.1
17.5°	1132.2	1096.0	1095.2	1057.3	1031.5	977.3	916.2	878.4	816.4	744.2	699.4
20°	1184.6	1148.5	1145.1	1096.9	1060.8	1003.1	930.0	885.2	814.7	735.6	685.7
22.5°	1209.6	1173.4	1164.8	1112.4	1071.1	1006.6	925.7	872.3	796.6	712.3	659.0
25°	1205.3	1168.3	1157.1	1101.2	1056.4	985.9	922.2	843.1	763.9	677.1	623.7
27.5°	1170.9	1134.7	1121.0	1067.6	1041.0	947.2	859.4	798.4	720.1	634.0	581.6
30°	1110.6	1078.0	1063.3	1010.9	961.0	888.7	800.1	745.9	666.7	587.6	535.1
32.5°	1040.1	1004.0	989.3	939.4	890.4	824.2	740.7	686.5	612.5	536.8	491.2
35°	947.2	924.8	909.3	857.7	819.0	751.9	672.8	624.6	555.8	487.8	446.5
37.5°	862.9	837.1	820.7	776.0	739.9	678.8	610.0	566.1	505.0	444.8	405.2
40°	770.8	749.3	738.1	694.3	660.7	608.2	551.5	510.2	457.7	402.6	369.9
42.5°	677.9	660.7	654.7	616.8	588.4	543.7	493.8	458.5	412.1	364.8	333.8
45°	596.2	581.6	576.4	544.6	521.3	483.5	443.1	410.4	370.8	329.5	302.8
47.5°	521.3	511.0	505.0	477.5	459.4	428.4	389.7	365.6	331.2	295.9	273.6
50°	458.5	443.9	442.2	416.4	402.6	375.1	344.1	325.2	295.9	265.0	246.9
52.5°	396.6	383.7	381.1	362.2	354.4	329.5	305.4	287.3	265.0	237.4	222.8
55°	343.3	332.9	330.4	318.3	309.7	289.9	268.4	255.5	235.7	213.4	201.3
57.5°	297.7	289.1	286.5	276.2	271.0	254.6	241.7	227.1	209.9	191.8	181.5
60°	258.1	251.2	250.3	240.9	237.4	224.5	209.1	201.3	188.4	172.1	164.3
62.5°	222.8	219.4	218.5	211.6	209.1	197.9	185.8	180.7	168.6	154.9	148.0
65°	194.4	192.7	191.0	185.0	183.2	174.6	164.3	160.0	150.6	138.5	133.3
67.5°	170.3	168.6	167.8	162.6	160.9	154.9	147.1	141.9	135.1	124.7	120.4
70°	143.7	147.1	147.1	142.8	141.9	135.9	129.9	125.6	120.4	111.0	108.4
72.5°	130.8	128.2	128.2	124.7	123.9	120.4	113.6	111.0	106.7	98.9	96.4
75°	113.6	111.8	111.8	108.4	108.4	108.4	99.8	98.1	93.8	86.9	85.2
77.5°	98.1	96.4	96.4	93.8	93.8	91.2	86.0	85.2	83.4	75.7	74.8
80°	84.3	82.6	82.6	80.0	80.0	77.4	74.0	73.1	69.7	65.4	64.5
82.5°	70.5	69.7	69.7	68.0	68.0	65.4	62.8	61.9	59.4	55.9	54.2
85°	59.4	59.4	59.4	57.6	57.6	55.1	53.3	52.5	49.9	47.3	46.5
87.5°	50.8	50.8	49.9	48.2	49.0	47.3	44.7	44.7	43.0	40.4	39.6
90°	44.7	43.9	43.9	43.0	43.0	41.3	40.4	38.7	37.0	35.3	34.4
92.5°	40.4	40.4	40.4	38.7	37.9	35.3	32.7	30.1	27.5	24.9	24.1
95°	26.7	27.5	27.5	26.7	24.1	20.6	16.3	13.8	10.3	7.7	7.7
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°	522.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2
2.5°	550.6	550.6	554.0	535.1	535.1	533.4	526.5	522.2	509.3	506.7	502.4
5°	587.6	580.7	575.5	549.7	543.7	535.1	523.1	511.9	494.7	487.8	477.5
7.5°	616.8	600.5	590.2	558.3	544.6	530.8	511.9	497.3	474.9	463.7	451.7
10°	639.2	616.8	597.0	558.3	539.4	520.5	496.4	475.7	451.7	437.0	420.7
12.5°	652.1	620.3	595.3	549.7	515.3	501.6	474.9	451.7	425.0	409.5	391.4
15°	653.0	615.1	584.1	534.2	505.9	480.0	449.9	420.7	404.3	380.3	361.3
17.5°	644.4	601.4	566.1	512.7	481.8	452.5	422.4	396.6	369.9	351.9	332.9
20°	625.4	578.1	539.4	485.2	454.2	422.4	392.3	367.3	341.5	323.5	306.3
22.5°	595.3	548.9	508.4	454.2	424.1	393.2	363.9	338.1	314.0	296.8	280.5
25°	560.1	511.9	473.2	421.5	392.3	368.2	334.7	311.4	288.2	272.7	257.2
27.5°	518.8	473.2	436.2	387.1	360.5	332.9	305.4	285.6	264.1	250.3	236.6
30°	477.5	432.7	397.5	354.4	328.6	304.5	279.6	261.5	242.6	229.7	217.7
32.5°	437.9	396.6	363.9	324.3	301.1	278.7	257.2	240.9	224.5	213.4	203.0
35°	398.3	360.5	332.1	295.9	274.4	254.6	236.6	221.1	207.3	197.9	188.4
37.5°	363.9	328.6	302.0	271.0	252.1	234.0	218.5	204.8	191.8	183.2	174.6
40°	331.2	299.4	275.3	247.8	232.3	215.9	201.3	190.1	178.9	171.2	163.5
42.5°	301.1	273.6	252.1	227.1	212.5	200.5	186.7	176.4	166.0	160.0	154.0
45°	273.6	248.6	229.7	209.1	196.1	184.1	172.9	163.5	154.9	149.7	143.7
47.5°	247.8	226.3	211.6	192.7	181.5	170.3	160.0	152.3	145.4	140.2	135.1
50°	224.5	206.5	192.7	177.2	167.8	160.0	148.8	141.9	135.1	131.6	126.5
52.5°	203.9	187.5	176.4	161.7	154.0	146.3	138.5	132.5	125.6	123.0	118.7
55°	185.0	171.2	161.7	149.7	142.8	135.9	129.0	123.0	117.9	115.3	111.0
57.5°	167.8	155.7	148.0	136.8	130.8	125.6	118.7	114.4	109.3	106.7	104.1
60°	152.3	141.9	135.1	125.6	121.3	115.3	110.1	105.8	101.5	98.9	96.4
62.5°	138.5	129.0	123.0	115.3	111.0	105.8	101.5	98.1	93.8	92.1	89.5
65°	124.7	117.0	111.8	105.8	101.5	97.2	92.9	89.5	86.0	84.3	81.7
67.5°	112.7	106.7	102.4	96.4	92.1	89.5	85.2	82.6	79.1	77.4	74.8
70°	101.5	95.5	92.1	86.9	83.4	80.9	76.6	73.1	71.4	70.5	68.0
72.5°	90.3	85.2	81.7	77.4	74.8	72.3	68.8	66.2	64.5	65.4	61.1
75°	80.0	75.7	73.1	68.8	66.2	64.5	61.1	59.4	56.8	55.9	54.2
77.5°	69.7	66.2	63.7	60.2	58.5	55.9	53.3	51.6	49.0	49.0	46.5
80°	60.2	56.8	54.2	50.8	49.9	48.2	46.5	43.9	42.2	41.3	39.6
82.5°	51.6	49.0	46.5	43.9	42.2	40.4	38.7	37.0	35.3	34.4	32.7
85°	43.0	41.3	38.7	37.0	35.3	33.6	31.8	31.0	29.3	28.4	26.7
87.5°	37.0	35.3	33.6	31.8	30.1	28.4	26.7	25.8	24.1	24.1	22.4
90°	31.8	31.0	29.3	27.5	26.7	24.9	24.1	22.4	21.5	20.6	19.8
92.5°	24.1	24.9	24.1	24.1	24.1	23.2	22.4	21.5	20.6	19.8	18.9
95°	8.6	11.2	12.0	14.6	15.5	17.2	16.3	16.3	14.6	14.6	12.9
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: P130233

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6NFL - 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: P130233

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6NFL - ERT702

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	522.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2	522.2
2.5°	494.7	496.4	494.7	489.5	486.1	481.8	480.0	474.0	477.5	471.4	474.9
5°	466.3	464.6	457.7	449.9	442.2	433.6	431.0	425.0	415.5	419.0	419.8
7.5°	435.3	430.2	420.7	411.2	403.5	393.2	388.9	379.4	378.5	373.4	373.4
10°	405.2	397.5	387.1	376.8	364.8	356.2	351.0	341.5	339.0	333.8	333.8
12.5°	374.2	364.8	353.6	343.3	332.1	321.8	316.6	308.0	304.5	300.2	297.7
15°	344.1	333.8	322.6	311.4	301.1	293.4	286.5	278.7	276.2	265.8	268.4
17.5°	315.7	307.1	295.1	284.8	275.3	266.7	260.7	253.8	250.3	246.0	245.2
20°	289.9	281.3	270.1	259.8	251.2	244.3	238.3	231.4	228.0	224.5	224.5
22.5°	265.0	257.2	247.8	238.3	235.7	223.7	218.5	211.6	210.8	206.5	205.6
25°	243.5	236.6	228.0	220.2	212.5	206.5	202.2	196.1	194.4	191.8	191.0
27.5°	224.5	217.7	210.8	203.9	197.0	192.7	187.5	183.2	181.5	178.9	178.1
30°	207.3	202.2	195.3	189.3	183.2	178.9	176.4	171.2	169.5	167.8	166.9
32.5°	193.6	188.4	182.4	178.1	172.1	168.6	166.0	161.7	160.0	158.3	158.3
35°	179.8	175.5	170.3	166.0	161.7	158.3	155.7	152.3	151.4	148.8	149.7
37.5°	167.8	164.3	160.0	156.6	152.3	149.7	147.1	143.7	142.8	141.9	141.9
40°	157.4	154.9	150.6	144.5	143.7	141.1	139.4	135.9	135.9	134.2	134.2
42.5°	148.0	145.4	141.9	139.4	135.9	134.2	132.5	129.9	129.0	127.3	128.2
45°	139.4	136.8	134.2	132.5	128.2	127.3	125.6	123.0	122.2	120.4	121.3
47.5°	130.8	129.0	127.3	124.7	122.2	120.4	118.7	116.1	116.1	114.4	115.3
50°	123.0	121.3	119.6	117.9	114.4	113.6	112.7	110.1	109.3	108.4	109.3
52.5°	115.3	114.4	112.7	111.0	108.4	107.5	105.8	104.1	103.2	102.4	103.2
55°	108.4	107.5	105.8	104.1	101.5	101.5	99.8	98.1	97.2	96.4	97.2
57.5°	100.7	100.7	98.9	98.1	95.5	94.6	93.8	91.2	91.2	90.3	91.2
60°	94.6	93.8	94.6	91.2	88.6	87.8	86.9	85.2	85.2	84.3	85.2
62.5°	86.9	86.9	86.0	85.2	82.6	82.6	80.9	79.1	79.1	78.3	79.1
65°	80.0	80.0	79.1	78.3	76.6	75.7	74.8	73.1	73.1	72.3	73.1
67.5°	74.0	73.1	72.3	71.4	69.7	69.7	68.0	67.1	66.2	66.2	67.1
70°	67.1	66.2	66.2	64.5	63.7	62.8	61.9	61.1	60.2	59.4	60.2
72.5°	60.2	59.4	59.4	58.5	56.8	55.9	55.1	54.2	54.2	53.3	54.2
75°	53.3	52.5	52.5	50.8	49.9	49.0	48.2	47.3	47.3	47.3	47.3
77.5°	45.6	45.6	44.7	43.9	43.0	42.2	42.2	41.3	40.4	40.4	41.3
80°	38.7	38.7	37.9	37.0	36.1	36.1	35.3	34.4	34.4	33.6	34.4
82.5°	31.8	31.8	31.0	31.0	29.3	30.1	29.3	28.4	28.4	28.4	28.4
85°	26.7	25.8	24.9	24.9	24.1	24.1	24.1	23.2	23.2	23.2	23.2
87.5°	21.5	21.5	20.6	20.6	19.8	19.8	19.8	19.8	18.9	18.9	19.8
90°	18.9	18.9	18.9	18.1	18.1	18.1	18.1	17.2	17.2	17.2	17.2
92.5°	18.1	17.2	16.3	15.5	13.8	13.8	13.8	14.6	14.6	15.5	16.3
95°	11.2	9.5	7.7	6.0	5.2	5.2	4.3	6.0	6.9	8.6	10.3
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



TEST NUMBER: P130233

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6NFL - 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: P130233

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6NFL - ERT702

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	522.2	522.2	522.2	522.2
2.5°	477.5	468.0	462.8	475.7
5°	419.8	411.2	404.3	419.0
7.5°	371.6	366.5	359.6	366.5
10°	332.1	319.2	318.3	327.8
12.5°	296.8	289.9	285.6	294.2
15°	267.6	261.5	257.2	264.1
17.5°	244.3	239.2	234.0	239.2
20°	222.8	217.7	213.4	221.1
22.5°	204.8	201.3	196.1	201.3
25°	190.1	186.7	182.4	187.5
27.5°	178.1	174.6	171.2	175.5
30°	166.9	164.3	160.9	166.0
32.5°	157.4	152.3	152.3	156.6
35°	148.8	147.1	143.7	148.0
37.5°	141.1	139.4	136.8	140.2
40°	134.2	132.5	129.9	133.3
42.5°	126.5	126.5	123.0	126.5
45°	121.3	119.6	117.0	120.4
47.5°	115.3	113.6	111.0	114.4
50°	109.3	107.5	105.8	108.4
52.5°	103.2	102.4	98.9	102.4
55°	97.2	96.4	93.8	96.4
57.5°	91.2	90.3	87.8	90.3
60°	85.2	84.3	82.6	84.3
62.5°	79.1	78.3	76.6	78.3
65°	73.1	72.3	70.5	72.3
67.5°	66.2	66.2	64.5	66.2
70°	60.2	60.2	58.5	60.2
72.5°	54.2	54.2	52.5	54.2
75°	48.2	47.3	45.6	47.3
77.5°	41.3	40.4	40.4	40.4
80°	34.4	34.4	33.6	34.4
82.5°	28.4	28.4	27.5	28.4
85°	23.2	23.2	22.4	24.1
87.5°	19.8	19.8	18.9	18.9
90°	17.2	17.2	17.2	17.2
92.5°	16.3	16.3	16.3	16.3
95°	11.2	12.0	11.2	11.2
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: P130233

CATALOG NUMBER: HL612ICAT - HLM6940 - HL6NFL - 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)