

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: P130271

Luminaire Tested: **HL612ICAT - HLM6930 - HL6WFL - ERT702**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130271
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33494)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL612ICAT - HLM6930 - HL6WFL - ERT702
Description: HALO ALLSLOPE 6" 21W, Drop Opal Plastic Lens, White Polymer Trim
Ring "Dead Front", Wet Location - Showerlight using 55 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: 1175.0 lumens
Efficiency: N/A
Efficacy: 61.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.89 / 1.13
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')
CIE Type: Direct

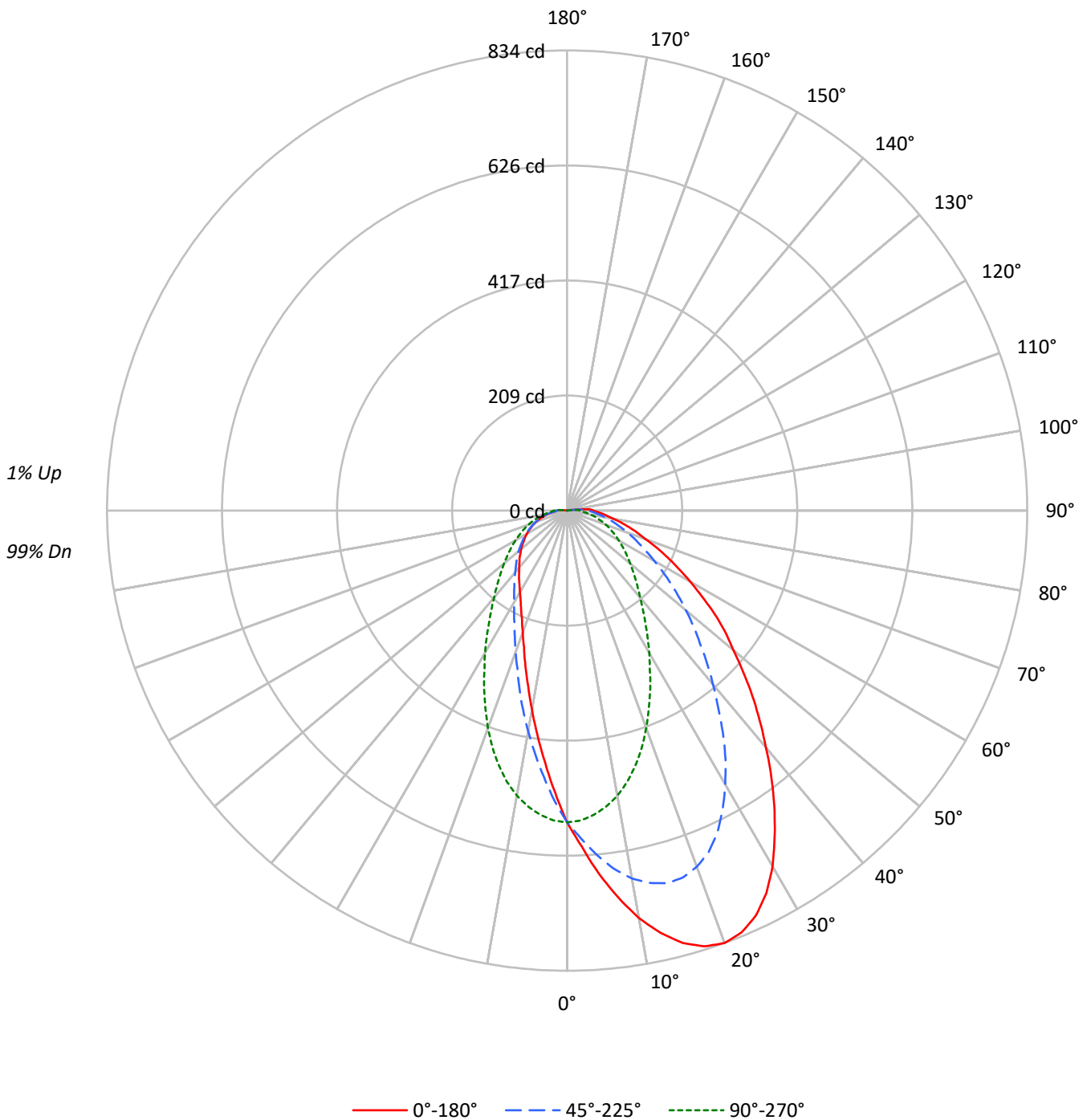
Input Watts (W): 19.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	101	101	99
1	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	91	85	79	96	89	83	78	85	80	76	82	78	74	79	75	72	70
3	91	81	73	67	89	79	72	66	76	70	65	73	68	64	71	66	62	60
4	84	72	64	58	82	71	63	57	68	62	56	66	60	55	64	59	54	52
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	51	45	70	58	50	44	57	49	44	55	48	44	53	47	43	41
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37
8	63	50	42	36	61	49	41	36	48	41	36	46	40	35	45	39	35	33
9	59	46	38	33	58	45	38	33	44	37	33	43	37	32	42	36	32	30
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	33719	33719	33719
5°	38683	32412	26866
10°	43424	30374	21231
15°	46809	27581	16851
20°	48317	24286	13617
25°	47449	20873	11568
30°	44507	17772	10224
35°	40205	15144	9326
40°	35712	13132	8608
45°	31653	11645	8130
50°	27717	10516	7673
55°	24616	9596	7212
60°	21085	8821	6884
65°	17994	8133	6469
70°	15222	7525	6022
75°	13409	6809	5384
80°	11545	6019	4689
85°	10721	5208	4021



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	4.5
10°-20°	144.6	12.3
20°-30°	198.3	16.9
30°-40°	204.9	17.4
40°-50°	182.8	15.6
50°-60°	149.5	12.7
60°-70°	111.2	9.5
70°-80°	74.2	6.3
80°-90°	42.1	3.6
90°-100°	14.7	1.2
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°	395.6	33.7
0°-40°	600.5	51.1
0°-60°	932.8	79.4
0°-90°	1160.3	98.8
90°-120°	14.7	1.2
90°-150°	14.7	1.2
90°-180°	15.0	1.3
0°-180°	1175.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	565	565	565	565	565	
5°	661	627	554	484	459	66
15°	811	699	478	334	292	229
25°	810	644	356	226	197	370
35°	654	492	246	167	152	408
45°	475	340	175	130	122	366
55°	326	228	127	100	96	291
65°	200	146	90	74	72	200
75°	116	91	59	47	46	123
85°	63	51	31	24	24	56
90°	47	39	24	18	18	26
95°	28	22	12	9	10	14
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°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	564.9	564.9	564.9	564.9	564.9	564.9	564.9	564.9	564.9
2.5°	609.7	600.0	595.6	580.7	562.3	548.3	526.3	519.3	510.5
5°	660.6	645.6	627.2	593.9	553.5	521.1	484.2	470.2	458.8
7.5°	707.0	688.6	655.3	600.9	541.2	491.2	444.8	422.8	410.5
10°	750.0	725.5	677.2	602.7	524.6	459.7	406.2	380.7	366.7
12.5°	784.2	755.3	691.3	598.3	503.5	425.5	369.3	338.6	326.3
15°	811.4	777.2	699.1	587.7	478.1	393.9	334.2	303.5	292.1
17.5°	828.1	789.5	697.4	569.3	450.0	359.7	300.0	271.9	259.7
20°	834.2	791.3	686.9	546.5	419.3	329.8	272.8	247.4	235.1
22.5°	827.2	781.6	670.2	520.2	386.9	300.0	247.4	224.6	214.0
25°	809.7	763.2	643.9	488.6	356.2	273.7	226.3	206.1	197.4
27.5°	781.6	734.2	610.5	455.3	324.6	250.0	207.9	190.4	182.5
30°	744.8	697.4	572.8	419.3	297.4	229.0	191.2	177.2	171.1
32.5°	700.0	654.4	534.2	384.2	271.1	211.4	179.0	165.8	160.5
35°	654.4	609.7	492.1	349.1	246.5	194.7	166.7	156.1	151.8
37.5°	607.9	566.7	449.1	317.6	225.4	179.8	156.1	147.4	143.0
40°	560.5	521.9	411.4	287.7	206.1	166.7	146.5	139.5	135.1
42.5°	516.7	478.1	375.5	261.4	189.5	155.3	137.7	131.6	128.1
45°	474.6	438.6	340.4	237.7	174.6	144.7	129.8	124.6	121.9
47.5°	432.5	400.0	310.5	216.7	161.4	135.1	121.9	117.5	114.9
50°	393.0	364.0	280.7	196.5	149.1	126.3	114.9	110.5	108.8
52.5°	360.5	330.7	253.5	179.0	137.7	117.5	107.0	104.4	102.6
55°	326.3	296.5	228.1	163.2	127.2	109.7	100.0	97.4	95.6
57.5°	289.5	265.8	204.4	148.3	117.5	101.8	93.0	91.2	90.4
60°	257.9	236.9	182.5	136.0	107.9	93.9	86.8	85.1	84.2
62.5°	227.2	209.7	163.2	122.8	99.1	86.8	79.8	78.1	78.1
65°	200.0	184.2	145.6	111.4	90.4	79.8	73.7	72.8	71.9
67.5°	176.3	161.4	130.7	100.9	82.5	71.1	66.7	66.7	65.8
70°	150.9	142.1	115.8	91.2	74.6	64.9	60.5	59.7	59.7
72.5°	133.3	124.6	102.6	81.6	66.7	57.9	54.4	54.4	53.5
75°	115.8	108.8	91.2	72.8	58.8	51.8	47.4	47.4	46.5
77.5°	100.0	94.7	79.8	64.0	51.8	44.7	41.2	41.2	40.4
80°	84.2	82.5	69.3	55.3	43.9	37.7	36.0	35.1	34.2
82.5°	73.7	71.1	60.5	47.4	36.8	31.6	28.9	28.9	28.9
85°	63.2	60.5	50.9	40.4	30.7	26.3	23.7	23.7	23.7
87.5°	54.4	52.6	43.9	34.2	26.3	21.9	20.2	20.2	20.2
90°	47.4	45.6	38.6	29.8	23.7	19.3	18.4	18.4	18.4
92.5°	43.0	40.4	34.2	24.6	20.2	17.5	15.8	14.9	16.7
95°	28.1	24.6	21.9	14.0	12.3	9.6	8.8	7.9	9.6
97.5°	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
102.5°	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
107.5°	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



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	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
117.5°	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
122.5°	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
127.5°	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
132.5°	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
137.5°	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
142.5°	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
147.5°	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
152.5°	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
157.5°	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
162.5°	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
167.5°	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
172.5°	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
177.5°	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

(END OF REPORT)