

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: P130128

Luminaire Tested: **HL618TAT - HLM6930 - HL6WFL - 71PS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130128
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33492)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL618TAT - HLM6930 - HL6WFL - 71PS
Description: HALO ALLSLOPE 6" 30W, Drop Opal Glass 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: 1190.6 lumens
Efficiency: N/A
Efficacy: 43.1 lumens/watt
Spacing Criteria (0/90/45): 1.33 / 1.29 / 1.46
Luminous Opening: Vertical Cylinder (Dia: 0.48' x H: 0.1')
CIE Type: Direct

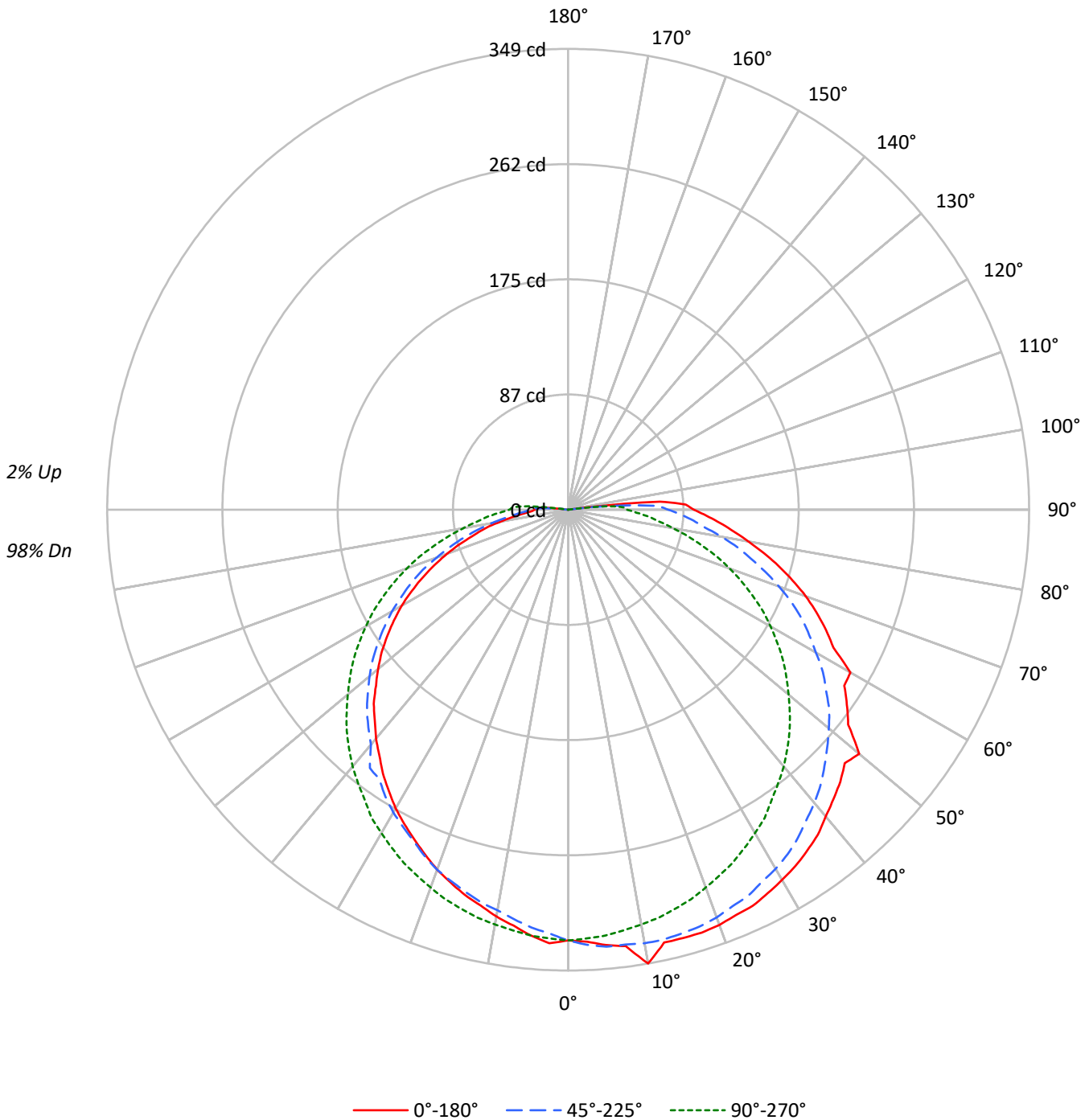
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	118	118	118	118	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	106	100	95	90	103	97	92	88	92	89	85	88	85	82	84	81	79	77
2	95	86	78	71	92	83	76	70	79	73	68	76	71	66	72	68	64	62
3	86	74	65	58	83	72	64	57	69	62	56	66	60	55	63	58	53	51
4	78	65	56	48	76	64	55	48	61	53	47	58	51	46	56	50	45	43
5	72	58	48	41	69	57	48	41	54	46	40	52	45	39	50	44	39	36
6	66	52	42	36	64	51	42	35	49	41	35	47	40	34	45	39	34	31
7	61	47	38	31	59	46	37	31	44	36	31	42	35	30	41	35	30	28
8	57	43	34	28	55	42	33	27	40	33	27	39	32	27	37	31	26	24
9	53	39	31	25	52	38	30	25	37	30	24	36	29	24	35	28	24	22
10	50	36	28	22	48	35	27	22	34	27	22	33	26	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	19471	19471	19471
5°	19382	18961	18961
10°	20207	18464	18117
15°	19372	18051	17428
20°	19380	17637	16803
25°	19397	17281	16150
30°	19349	16899	15609
35°	19371	16490	15009
40°	19325	16177	14419
45°	19428	15813	13886
50°	20284	15361	13245
55°	19433	14982	12621
60°	20169	14462	11903
65°	19380	13865	10941
70°	19308	13114	9836
75°	19095	12124	8499
80°	18977	11052	7103
85°	19594	10416	5717



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.9	2.6
10°-20°	89.5	7.5
20°-30°	138.4	11.6
30°-40°	173.1	14.5
40°-50°	189.2	15.9
50°-60°	185.5	15.6
60°-70°	161.2	13.5
70°-80°	119.7	10.1
80°-90°	74.9	6.3
90°-100°	28.2	2.4
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°	258.9	21.7
0°-40°	432.0	36.3
0°-60°	806.7	67.8
0°-90°	1162.4	97.6
90°-120°	28.2	2.4
90°-150°	28.2	2.4
90°-180°	28.0	2.4
0°-180°	1190.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	326	326	326	326	326	
5°	331	332	324	318	324	32
15°	336	332	313	300	302	95
25°	331	323	295	277	276	153
35°	315	303	268	249	244	198
45°	291	274	237	215	208	226
55°	258	238	199	176	167	233
65°	215	195	154	131	122	214
75°	165	143	105	82	73	174
85°	116	95	61	40	34	99
90°	95	76	44	29	25	53
95°	70	34	30	11	17	31
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°	326.2	326.2	326.2	326.2	326.2	326.2	326.2	326.2	326.2
2.5°	327.4	329.8	329.8	328.6	325.0	326.2	321.3	322.6	328.6
5°	331.0	332.2	332.2	328.6	323.8	323.8	317.7	317.7	323.8
7.5°	333.4	334.6	332.2	328.6	321.3	320.1	312.9	312.9	317.7
10°	349.0	335.8	333.4	327.4	318.9	316.5	308.1	309.3	312.9
12.5°	335.8	335.8	333.4	326.2	316.5	312.9	304.5	303.3	306.9
15°	335.8	335.8	332.2	323.8	312.9	309.3	299.7	298.5	302.1
17.5°	335.8	335.8	331.0	321.3	309.3	304.5	294.9	293.7	296.1
20°	334.6	334.6	328.6	317.7	304.5	299.7	290.1	287.6	290.1
22.5°	332.2	332.2	325.0	314.1	299.7	293.7	284.0	281.6	282.8
25°	331.0	329.8	322.6	309.3	294.9	288.9	276.8	275.6	275.6
27.5°	327.4	326.2	317.7	305.7	288.9	281.6	270.8	268.4	268.4
30°	323.8	322.6	314.1	299.7	282.8	275.6	264.8	261.2	261.2
32.5°	320.1	318.9	309.3	294.9	276.8	268.4	257.6	253.9	252.7
35°	315.3	314.1	303.3	287.6	268.4	260.0	249.1	246.7	244.3
37.5°	310.5	308.1	296.1	280.4	261.2	252.7	246.7	238.3	234.7
40°	303.3	302.1	290.1	273.2	253.9	247.9	232.3	231.1	226.3
42.5°	297.3	294.9	282.8	266.0	245.5	234.7	223.9	220.2	216.6
45°	291.3	287.6	274.4	257.6	237.1	226.3	215.4	210.6	208.2
47.5°	284.0	285.2	266.0	249.1	227.5	216.6	205.8	201.0	197.4
50°	287.6	273.2	257.6	239.5	217.8	207.0	196.2	191.4	187.8
52.5°	267.2	263.6	249.1	229.9	208.2	197.4	186.5	181.7	178.1
55°	257.6	253.9	238.3	220.2	198.6	186.5	175.7	170.9	167.3
57.5°	247.9	244.3	228.7	210.6	187.8	175.7	164.9	160.1	156.5
60°	246.7	233.5	216.6	199.8	176.9	164.9	154.1	152.9	145.6
62.5°	226.3	222.7	205.8	187.8	166.1	152.9	142.0	137.2	133.6
65°	215.4	211.8	195.0	175.7	154.1	140.8	131.2	125.2	121.6
67.5°	203.4	199.8	182.9	163.7	142.0	128.8	119.2	114.3	109.5
70°	191.4	187.8	169.7	151.6	130.0	116.7	105.9	101.1	97.5
72.5°	178.1	174.5	156.5	138.4	117.9	103.5	93.9	89.1	85.5
75°	164.9	161.3	143.2	126.4	104.7	91.5	81.8	77.0	73.4
77.5°	151.6	148.0	131.2	113.1	92.7	79.4	69.8	65.0	63.8
80°	138.4	134.8	117.9	99.9	80.6	67.4	59.0	54.2	51.8
82.5°	126.4	122.8	104.7	89.1	69.8	56.6	48.1	44.5	42.1
85°	115.5	110.7	95.1	78.2	61.4	46.9	39.7	34.9	33.7
87.5°	104.7	99.9	85.5	68.6	51.8	39.7	32.5	28.9	27.7
90°	95.1	90.3	75.8	60.2	44.5	34.9	28.9	26.5	25.3
92.5°	89.1	83.0	67.4	51.8	42.1	32.5	24.1	22.9	24.1
95°	69.8	51.8	33.7	32.5	30.1	18.1	10.8	13.2	16.8
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)