

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: P130088

Luminaire Tested: **HL618TAT - HLM6930 - HL6NFL - 71PS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130088
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33476)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: HL618TAT - HLM6930 - HL6NFL - 71PS
Description: HALO ALLSLOPE 6" 30W, Drop Opal Glass 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 / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1087.2 lumens
Efficiency: N/A
Efficacy: 39.4 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

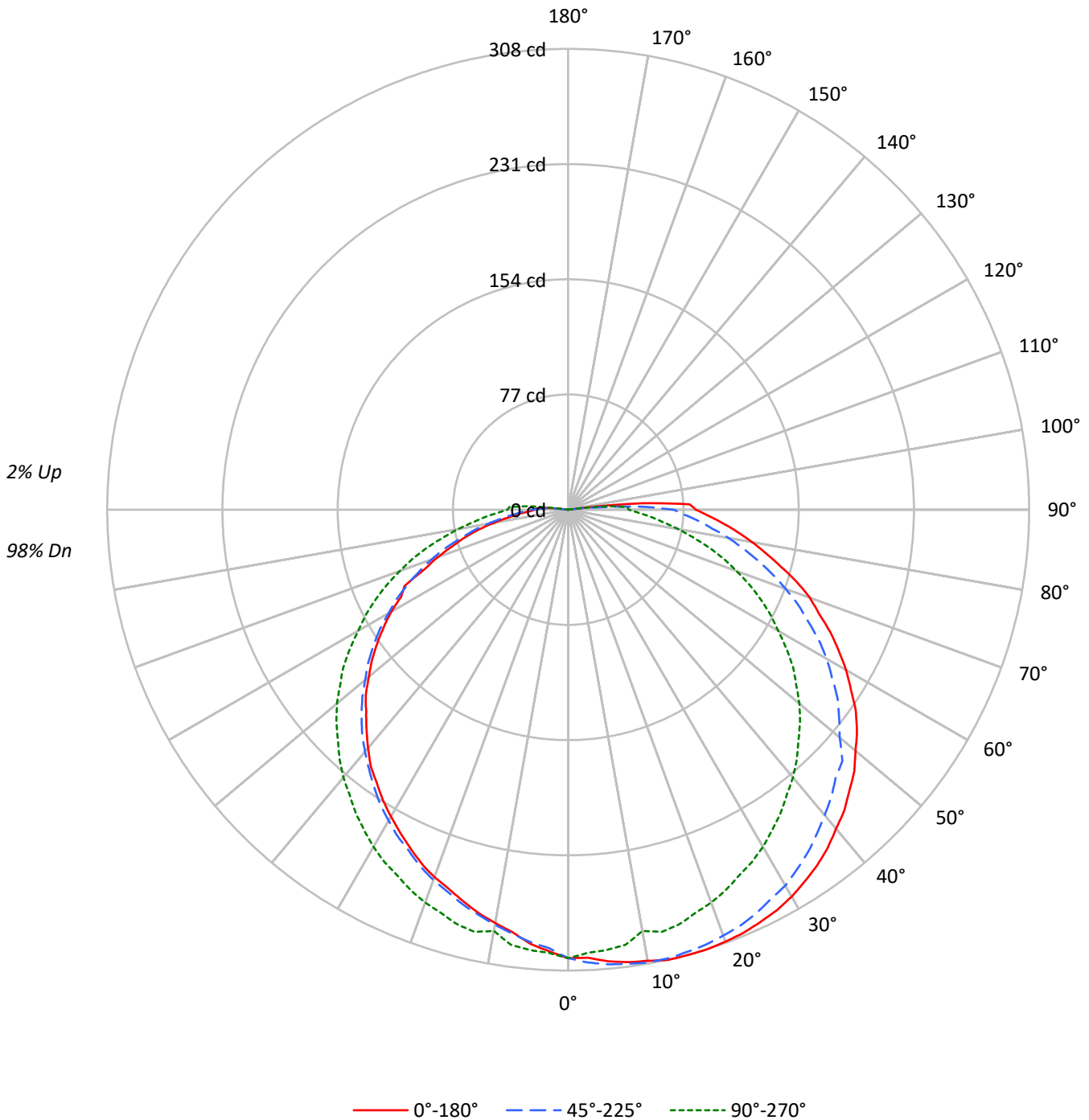
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	106	100	95	90	103	97	93	88	93	89	85	88	85	82	84	82	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	73	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	52	46	56	50	45	43
5	72	58	48	41	70	57	48	41	54	46	40	52	45	39	50	44	39	37
6	66	52	42	36	64	51	42	35	49	41	35	47	40	34	45	39	34	32
7	61	47	38	31	59	46	37	31	44	36	31	43	36	30	41	35	30	28
8	57	43	34	28	55	42	33	28	40	33	27	39	32	27	38	31	27	25
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	28	22	34	27	22	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	17889	17889	17889
5°	17737	17298	17052
10°	17723	16547	16241
15°	17780	16551	15628
20°	17793	16183	15134
25°	17815	15810	14627
30°	17844	15549	14151
35°	17823	15200	13694
40°	17738	14884	13253
45°	17714	14513	12732
50°	17674	14218	12258
55°	17698	13836	11746
60°	17528	13252	11160
65°	17364	12758	10842
70°	17321	12055	9361
75°	17045	11244	8279
80°	17112	10243	6869
85°	17558	9415	5615



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.4	2.6
10°-20°	82.0	7.5
20°-30°	127.2	11.7
30°-40°	158.8	14.6
40°-50°	173.4	16.0
50°-60°	169.6	15.6
60°-70°	147.0	13.5
70°-80°	109.5	10.1
80°-90°	68.3	6.3
90°-100°	23.1	2.1
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°	237.5	21.8
0°-40°	396.3	36.5
0°-60°	739.3	68.0
0°-90°	1064.1	97.9
90°-120°	23.1	2.1
90°-150°	23.1	2.1
90°-180°	23.0	2.1
0°-180°	1087.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	300	300	300	300	300	
5°	303	305	295	290	291	29
15°	308	306	287	273	271	87
25°	304	298	270	252	250	140
35°	290	279	247	226	223	182
45°	266	253	218	195	191	205
55°	235	220	183	159	156	209
65°	193	177	142	118	120	191
75°	147	131	97	75	72	156
85°	104	88	56	36	33	89
90°	85	70	40	24	22	47
95°	49	13	27	5	14	24
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°	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7	299.7
2.5°	299.7	306.1	302.9	298.6	296.5	301.8	293.3	297.6	295.4
5°	302.9	308.2	305.0	306.1	295.4	299.7	290.1	294.4	291.2
7.5°	305.0	310.4	306.1	298.6	293.3	295.4	285.8	289.0	284.8
10°	306.1	312.5	307.2	298.6	285.8	292.2	281.6	283.7	280.5
12.5°	308.2	313.6	307.2	291.2	289.0	289.0	277.3	279.4	276.2
15°	308.2	313.6	306.1	295.4	286.9	284.8	273.0	275.2	270.9
17.5°	308.2	307.2	305.0	293.3	282.6	280.5	267.7	269.8	265.6
20°	307.2	311.4	302.9	290.1	279.4	275.2	263.4	264.5	261.3
22.5°	306.1	310.4	300.8	286.9	275.2	269.8	258.1	258.1	256.0
25°	304.0	308.2	297.6	282.6	269.8	264.5	251.7	252.8	249.6
27.5°	301.8	305.0	293.3	278.4	265.6	259.2	246.4	246.4	243.2
30°	298.6	301.8	290.1	273.0	260.2	252.8	240.0	240.0	236.8
32.5°	294.4	296.5	284.8	267.7	253.8	246.4	233.6	233.6	230.4
35°	290.1	292.2	279.4	262.4	247.4	238.9	226.1	226.1	222.9
37.5°	284.8	286.9	273.0	256.0	240.0	231.4	218.6	218.6	216.5
40°	278.4	280.5	266.6	248.5	233.6	224.0	211.2	210.1	208.0
42.5°	273.0	274.1	260.2	242.1	226.1	215.4	203.7	201.6	199.4
45°	265.6	262.4	252.8	234.6	217.6	208.0	195.2	194.1	190.9
47.5°	259.2	260.2	248.5	226.1	210.1	198.4	186.6	185.6	183.4
50°	250.6	251.7	236.8	218.6	201.6	189.8	177.0	177.0	173.8
52.5°	243.2	242.1	228.2	208.0	192.0	180.2	168.5	167.4	165.3
55°	234.6	234.6	219.7	199.4	183.4	170.6	158.9	157.8	155.7
57.5°	224.0	224.0	209.0	189.8	172.8	161.0	149.3	148.2	146.1
60°	214.4	213.3	199.4	180.2	162.1	150.4	138.6	137.6	136.5
62.5°	203.7	202.6	188.8	169.6	152.5	139.7	129.0	126.9	125.8
65°	193.0	192.0	177.0	158.9	141.8	129.0	118.4	116.3	120.5
67.5°	181.3	180.2	166.4	148.2	131.2	118.4	107.7	105.6	103.5
70°	171.7	169.6	154.6	136.5	119.5	106.7	97.1	94.9	92.8
72.5°	160.0	157.8	142.9	124.8	108.8	96.0	86.4	83.2	81.1
75°	147.2	145.0	131.2	113.1	97.1	84.3	74.7	72.5	71.5
77.5°	135.4	133.3	119.5	102.4	85.3	72.5	65.1	61.9	60.8
80°	124.8	120.5	108.8	90.7	74.7	61.9	54.4	51.2	50.1
82.5°	114.1	109.9	97.1	80.0	64.0	51.2	44.8	41.6	40.5
85°	103.5	99.2	87.5	70.4	55.5	43.7	36.3	33.1	33.1
87.5°	93.9	89.6	77.9	61.9	46.9	36.3	29.9	26.7	25.6
90°	85.3	82.1	70.4	55.5	40.5	30.9	24.5	22.4	22.4
92.5°	81.1	71.5	46.9	44.8	39.5	27.7	17.1	20.3	21.3
95°	49.1	40.5	12.8	22.4	26.7	16.0	5.3	10.7	13.9
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)