

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: P130087

Luminaire Tested: **HL618TAT - HLM6927 - HL6NFL - 71PS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130087
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 - HLM6927 - 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 / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1019.0 lumens
Efficiency: N/A
Efficacy: 36.9 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

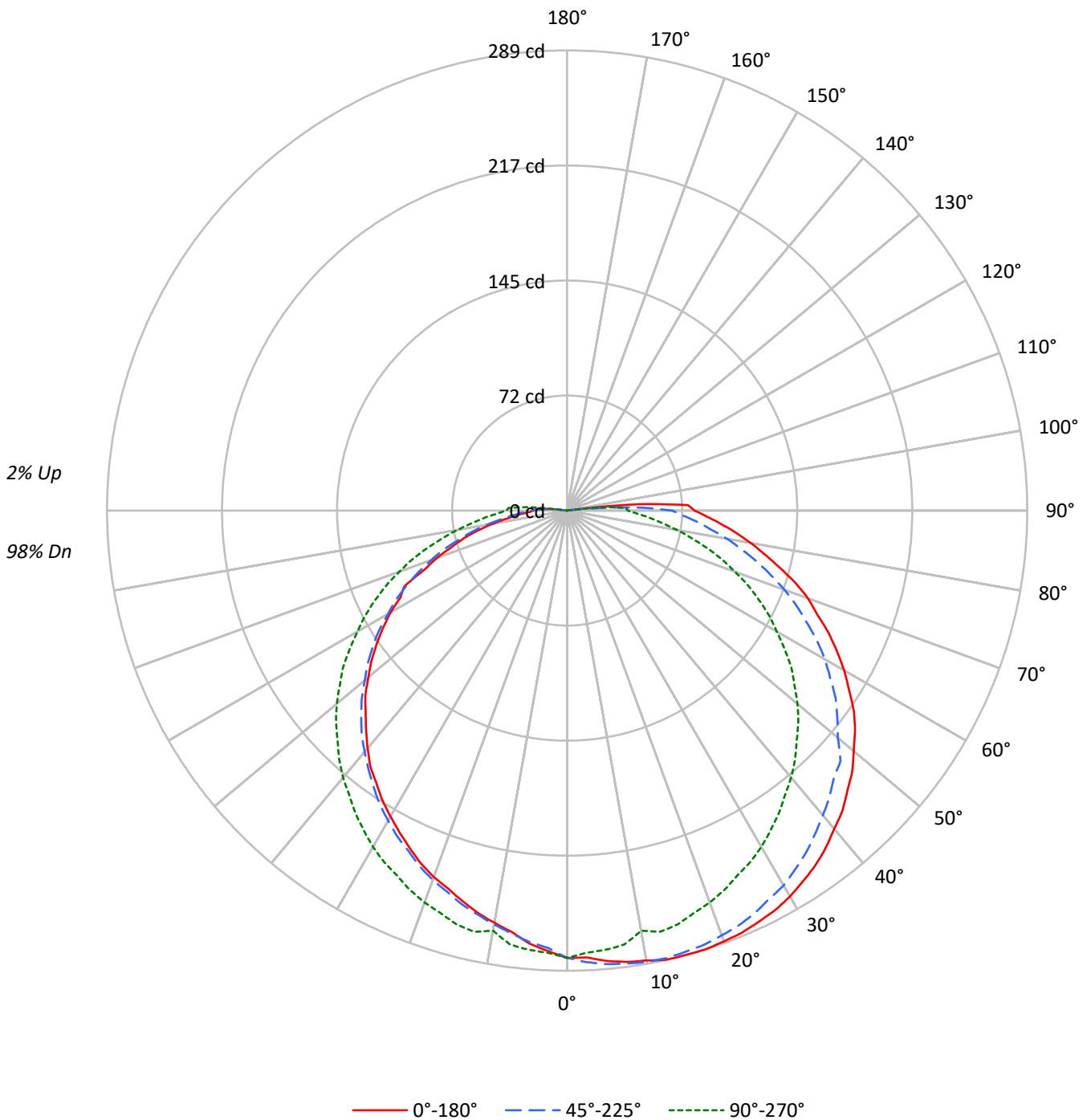
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	16767	16767	16767
5°	16624	16215	15980
10°	16611	15511	15222
15°	16666	15513	14647
20°	16675	15169	14185
25°	16695	14820	13707
30°	16726	14575	13260
35°	16705	14247	12834
40°	16623	13947	12418
45°	16600	13599	11931
50°	16567	13323	11489
55°	16589	12968	11014
60°	16425	12427	10465
65°	16276	11966	10167
70°	16231	11298	8776
75°	15980	10537	7758
80°	16043	9598	6444
85°	16455	8821	5259



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.6	2.6
10°-20°	76.8	7.5
20°-30°	119.2	11.7
30°-40°	148.8	14.6
40°-50°	162.5	16.0
50°-60°	159.0	15.6
60°-70°	137.8	13.5
70°-80°	102.6	10.1
80°-90°	64.0	6.3
90°-100°	21.6	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°	222.6	21.8
0°-40°	371.4	36.5
0°-60°	692.9	68.0
0°-90°	997.4	97.9
90°-120°	21.6	2.1
90°-150°	21.6	2.1
90°-180°	22.0	2.2
0°-180°	1019.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	281	281	281	281	281	
5°	284	286	277	272	273	27
15°	289	287	269	256	254	82
25°	285	279	253	236	234	132
35°	272	262	232	212	209	170
45°	249	237	204	183	179	192
55°	220	206	172	149	146	196
65°	181	166	133	111	113	179
75°	138	123	91	70	67	146
85°	97	82	52	34	31	83
90°	80	66	38	23	21	44
95°	46	12	25	5	13	23
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°	280.9	280.9	280.9	280.9	280.9	280.9	280.9	280.9	280.9
2.5°	280.9	286.9	283.9	279.9	277.9	282.9	274.9	278.9	276.9
5°	283.9	288.9	285.9	286.9	276.9	280.9	271.9	275.9	272.9
7.5°	285.9	290.9	286.9	279.9	274.9	276.9	267.9	270.9	266.9
10°	286.9	292.9	287.9	279.9	267.9	273.9	263.9	265.9	262.9
12.5°	288.9	293.9	287.9	272.9	270.9	270.9	259.9	261.9	258.9
15°	288.9	293.9	286.9	276.9	268.9	266.9	255.9	257.9	253.9
17.5°	288.9	287.9	285.9	274.9	264.9	262.9	250.9	252.9	248.9
20°	287.9	291.9	283.9	271.9	261.9	257.9	246.9	247.9	244.9
22.5°	286.9	290.9	281.9	268.9	257.9	252.9	241.9	241.9	239.9
25°	284.9	288.9	278.9	264.9	252.9	247.9	235.9	236.9	233.9
27.5°	282.9	285.9	274.9	260.9	248.9	242.9	230.9	230.9	227.9
30°	279.9	282.9	271.9	255.9	243.9	236.9	224.9	224.9	221.9
32.5°	275.9	277.9	266.9	250.9	237.9	230.9	218.9	218.9	215.9
35°	271.9	273.9	261.9	245.9	231.9	223.9	211.9	211.9	208.9
37.5°	266.9	268.9	255.9	239.9	224.9	216.9	204.9	204.9	202.9
40°	260.9	262.9	249.9	232.9	218.9	209.9	197.9	196.9	194.9
42.5°	255.9	256.9	243.9	226.9	211.9	201.9	190.9	188.9	186.9
45°	248.9	245.9	236.9	219.9	203.9	194.9	182.9	181.9	178.9
47.5°	242.9	243.9	232.9	211.9	196.9	185.9	174.9	173.9	171.9
50°	234.9	235.9	221.9	204.9	188.9	177.9	165.9	165.9	162.9
52.5°	227.9	226.9	213.9	194.9	179.9	168.9	157.9	156.9	154.9
55°	219.9	219.9	205.9	186.9	171.9	159.9	149.0	148.0	146.0
57.5°	209.9	209.9	195.9	177.9	161.9	151.0	140.0	139.0	137.0
60°	200.9	199.9	186.9	168.9	152.0	141.0	130.0	129.0	128.0
62.5°	190.9	189.9	176.9	158.9	143.0	131.0	121.0	119.0	118.0
65°	180.9	179.9	165.9	149.0	133.0	121.0	111.0	109.0	113.0
67.5°	169.9	168.9	155.9	139.0	123.0	111.0	101.0	99.0	97.0
70°	160.9	158.9	145.0	128.0	112.0	100.0	91.0	89.0	87.0
72.5°	150.0	148.0	134.0	117.0	102.0	90.0	81.0	78.0	76.0
75°	138.0	136.0	123.0	106.0	91.0	79.0	70.0	68.0	67.0
77.5°	127.0	125.0	112.0	96.0	80.0	68.0	61.0	58.0	57.0
80°	117.0	113.0	102.0	85.0	70.0	58.0	51.0	48.0	47.0
82.5°	107.0	103.0	91.0	75.0	60.0	48.0	42.0	39.0	38.0
85°	97.0	93.0	82.0	66.0	52.0	41.0	34.0	31.0	31.0
87.5°	88.0	84.0	73.0	58.0	44.0	34.0	28.0	25.0	24.0
90°	80.0	77.0	66.0	52.0	38.0	29.0	23.0	21.0	21.0
92.5°	76.0	67.0	44.0	42.0	37.0	26.0	16.0	19.0	20.0
95°	46.0	38.0	12.0	21.0	25.0	15.0	5.0	10.0	13.0
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)