

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: P130137

Luminaire Tested: **HL618TAT - HLM6935 - HL6WFL - ERT702**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P130137
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: HL618TAT - HLM6935 - HL6WFL - ERT702
Description: HALO ALLSLOPE 6" 30W, 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 / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1707.0 lumens
Efficiency: N/A
Efficacy: 61.8 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

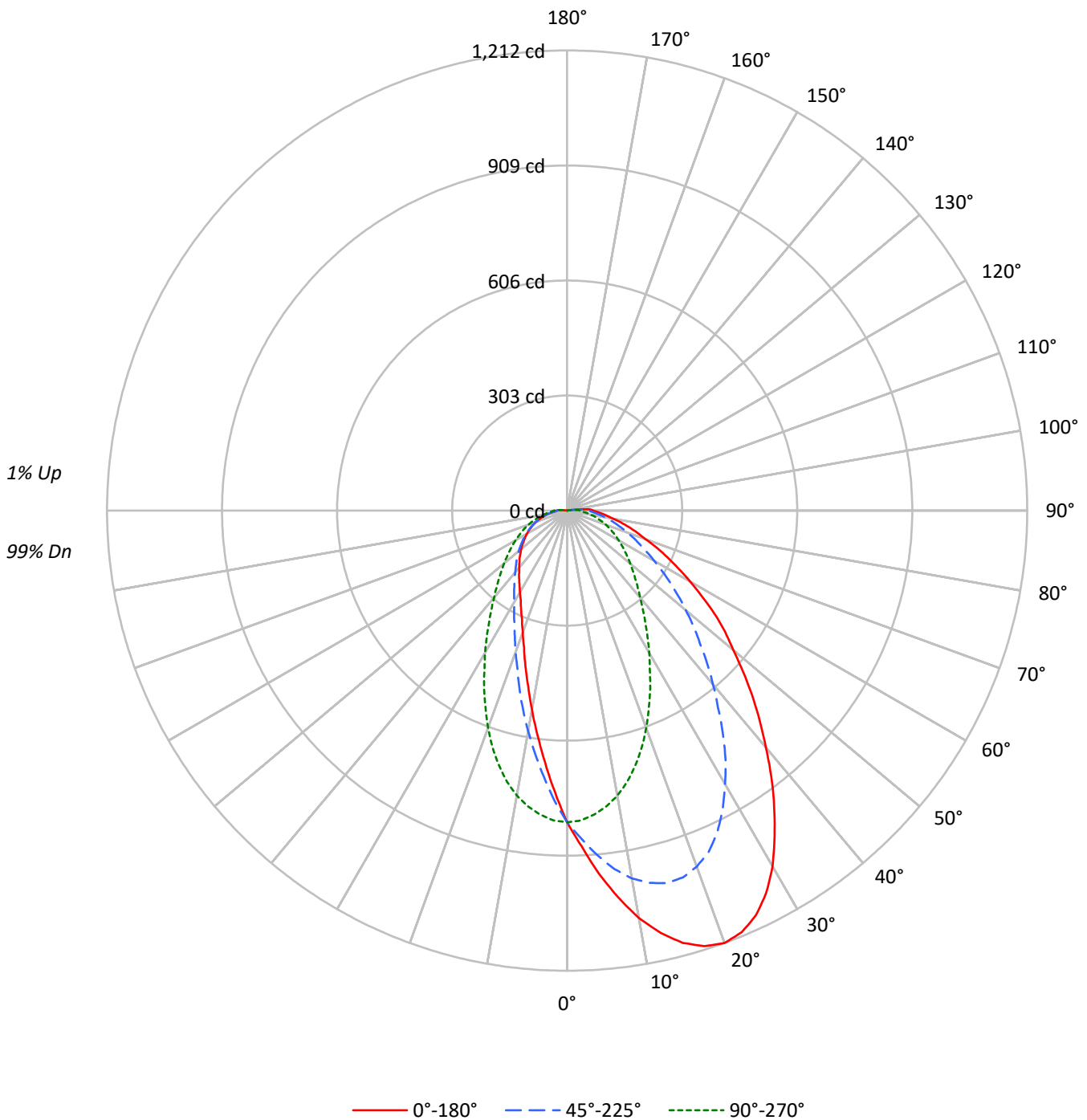
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	48988	48988	48988
5°	56192	47086	39028
10°	63086	44125	30843
15°	68004	40065	24483
20°	70193	35285	19780
25°	68932	30320	16801
30°	64657	25815	14850
35°	58409	22001	13547
40°	51883	19083	12507
45°	45979	16913	11811
50°	40264	15276	11143
55°	35766	13941	10479
60°	30633	12811	9999
65°	26146	11813	9402
70°	22112	10925	8746
75°	19477	9889	7816
80°	16769	8734	6815
85°	15573	7566	5836



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	4.5
10°-20°	210.1	12.3
20°-30°	288.1	16.9
30°-40°	297.7	17.4
40°-50°	265.6	15.6
50°-60°	217.2	12.7
60°-70°	161.5	9.5
70°-80°	107.8	6.3
80°-90°	61.2	3.6
90°-100°	21.3	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°	574.7	33.7
0°-40°	872.4	51.1
0°-60°	1355.2	79.4
0°-90°	1685.6	98.8
90°-120°	21.3	1.2
90°-150°	21.3	1.2
90°-180°	21.0	1.2
0°-180°	1707.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	821	821	821	821	821	
5°	960	911	804	704	666	95
15°	1179	1016	694	486	424	333
25°	1176	935	517	329	287	538
35°	951	715	358	242	220	593
45°	689	494	254	189	177	532
55°	474	331	185	145	139	422
65°	291	212	131	107	104	290
75°	168	132	85	69	68	179
85°	92	74	45	34	34	82
90°	69	56	34	27	27	38
95°	41	32	18	13	14	20
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°	820.7	820.7	820.7	820.7	820.7	820.7	820.7	820.7	820.7
2.5°	885.7	871.7	865.3	843.6	816.9	796.5	764.6	754.4	741.7
5°	959.6	937.9	911.2	862.8	804.1	757.0	703.5	683.1	666.5
7.5°	1027.2	1000.4	952.0	873.0	786.3	713.7	646.1	614.3	596.4
10°	1089.6	1053.9	983.8	875.5	762.1	667.8	590.0	553.1	532.7
12.5°	1139.3	1097.2	1004.2	869.1	731.5	618.1	536.5	491.9	474.1
15°	1178.8	1129.1	1015.7	853.8	694.5	572.2	485.5	440.9	424.4
17.5°	1203.0	1146.9	1013.1	827.1	653.8	522.5	435.8	395.1	377.2
20°	1211.9	1149.5	997.8	793.9	609.2	479.2	396.3	359.4	341.5
22.5°	1201.7	1135.5	973.6	755.7	562.0	435.8	359.4	326.2	311.0
25°	1176.3	1108.7	935.4	709.8	517.4	397.6	328.8	299.5	286.7
27.5°	1135.5	1066.7	887.0	661.4	471.5	363.2	302.0	276.5	265.1
30°	1082.0	1013.1	832.2	609.2	432.0	332.6	277.8	257.4	248.5
32.5°	1017.0	950.7	776.1	558.2	393.8	307.1	260.0	240.9	233.2
35°	950.7	885.7	714.9	507.2	358.1	282.9	242.1	226.8	220.5
37.5°	883.2	823.3	652.5	461.3	327.5	261.2	226.8	214.1	207.7
40°	814.3	758.3	597.7	418.0	299.5	242.1	212.8	202.6	196.3
42.5°	750.6	694.5	545.4	379.8	275.3	225.6	200.1	191.2	186.1
45°	689.4	637.2	494.5	345.4	253.6	210.3	188.6	181.0	177.1
47.5°	628.3	581.1	451.1	314.8	234.5	196.3	177.1	170.8	166.9
50°	570.9	528.9	407.8	285.5	216.6	183.5	166.9	160.6	158.0
52.5°	523.8	480.4	368.3	260.0	200.1	170.8	155.5	151.7	149.1
55°	474.1	430.7	331.3	237.0	184.8	159.3	145.3	141.5	138.9
57.5°	420.5	386.1	296.9	215.4	170.8	147.8	135.1	132.5	131.3
60°	374.7	344.1	265.1	197.5	156.7	136.4	126.2	123.6	122.3
62.5°	330.1	304.6	237.0	178.4	144.0	126.2	116.0	113.4	113.4
65°	290.6	267.6	211.5	161.8	131.3	116.0	107.0	105.8	104.5
67.5°	256.2	234.5	189.9	146.6	119.8	103.2	96.9	96.9	95.6
70°	219.2	206.5	168.2	132.5	108.3	94.3	87.9	86.7	86.7
72.5°	193.7	181.0	149.1	118.5	96.9	84.1	79.0	79.0	77.7
75°	168.2	158.0	132.5	105.8	85.4	75.2	68.8	68.8	67.5
77.5°	145.3	137.6	116.0	93.0	75.2	65.0	59.9	59.9	58.6
80°	122.3	119.8	100.7	80.3	63.7	54.8	52.2	51.0	49.7
82.5°	107.0	103.2	87.9	68.8	53.5	45.9	42.1	42.1	42.1
85°	91.8	87.9	73.9	58.6	44.6	38.2	34.4	34.4	34.4
87.5°	79.0	76.5	63.7	49.7	38.2	31.9	29.3	29.3	29.3
90°	68.8	66.3	56.1	43.3	34.4	28.0	26.8	26.8	26.8
92.5°	62.4	58.6	49.7	35.7	29.3	25.5	22.9	21.7	24.2
95°	40.8	35.7	31.9	20.4	17.8	14.0	12.7	11.5	14.0
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)