

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: E395255

Luminaire Tested: **H1499-1420**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: E395255
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H1499-1420
Description: HALO RECESSED INC - LV, 4" ADJUSTABLE SLOT, 0 DEG TILT
Light Source: 50MR16NSP, 900 LUMENS
Ballast/Driver: -

Summary

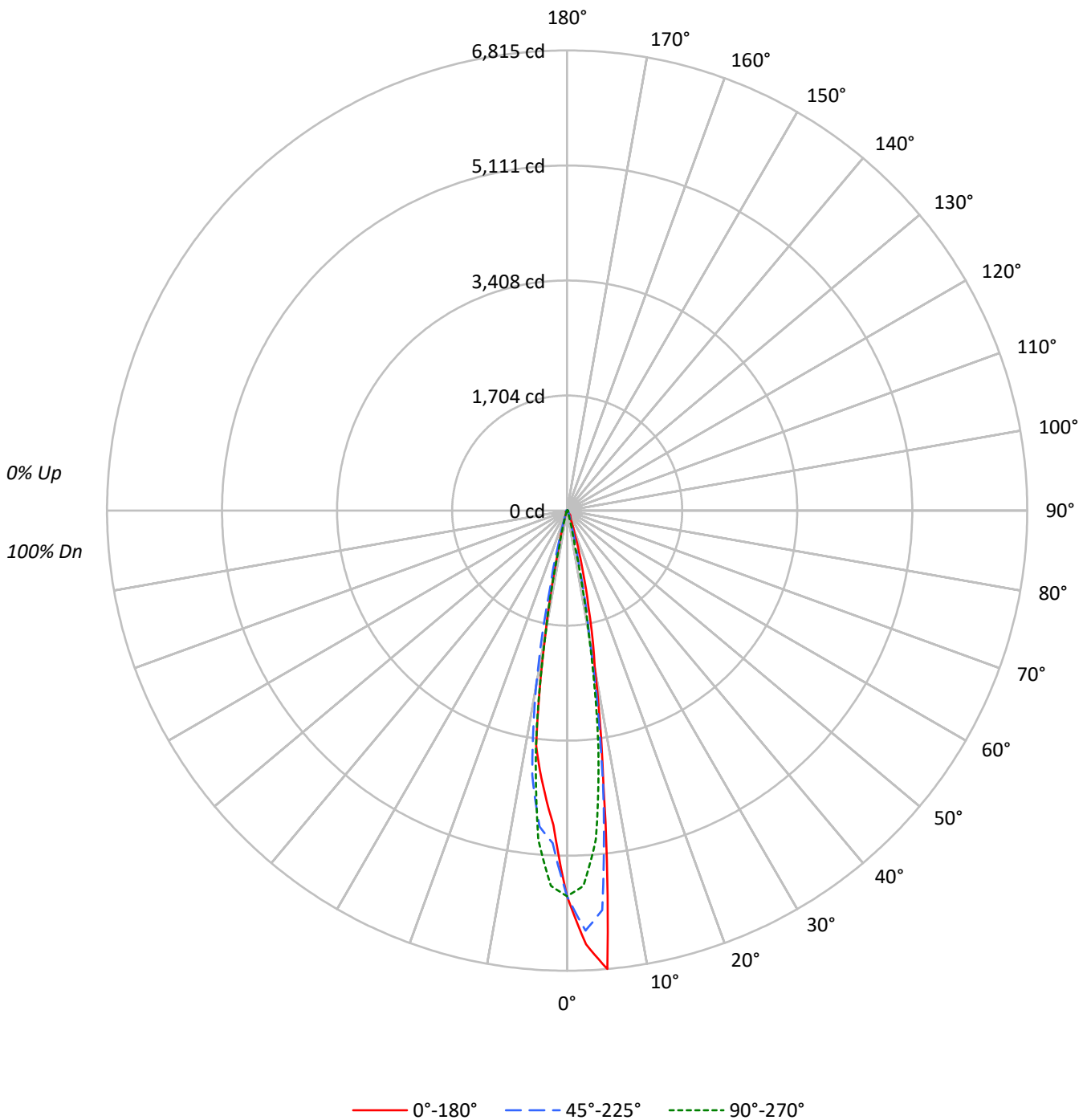
Lumens per Lamp: 900 (1 lamp)
Luminaire Lumens: 624.4 lumens
Efficiency: 69.4%
Efficacy: 10.4 lumens/watt
Spacing Criteria (0/90/45): 0.31 / 0.29 / 0.29
Luminous Opening: Rectangular (W 0.19' x L: 0.12' x H: 0')
CIE Type: Direct

Input Watts (W): 60
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	50	30	10	0	
RCR																						
0	83	83	83	83	81	81	81	81	77	77	77	74	74	74	71	71	71	69				
1	80	78	77	75	78	76	75	74	74	73	72	71	70	70	69	68	68	66				
2	77	75	73	71	76	73	72	70	71	70	68	69	68	67	67	67	66	65				
3	75	72	70	68	74	71	69	67	69	68	66	68	66	65	66	65	64	63				
4	73	70	67	65	72	69	67	65	68	66	64	66	65	63	65	64	63	62				
5	72	68	65	63	71	67	65	63	66	64	63	65	63	62	64	63	62	61				
6	70	66	64	62	69	66	63	62	65	63	61	64	62	61	63	62	61	60				
7	69	65	62	61	68	64	62	60	64	62	60	63	61	60	62	61	60	59				
8	68	64	61	60	67	63	61	59	63	61	59	62	60	59	62	60	59	58				
9	66	63	60	59	66	62	60	58	62	60	58	61	59	58	61	59	58	57				
10	65	62	59	58	65	61	59	58	61	59	58	60	59	57	60	58	57	57				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2696644	2696644	2696644
5°	3229662	2317869	1938271
10°	1131347	879191	888779
15°	396869	87487	135874
20°	114547	27632	26125
25°	61467	15106	16148
30°	53423	8722	10358
35°	39190	5187	6916
40°	12326	9861	19105
45°	9347	11350	17359
50°	9548	8079	11017
55°	6585	5762	5762
60°	6609	6609	6609
65°	6703	6703	6703
70°	6902	5521	5521
75°	16417	12768	10944
80°	27187	21750	24469
85°	48751	54168	65001



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	391.1	62.6	43.5
10°-20°	152.8	24.5	17.0
20°-30°	24.2	3.9	2.7
30°-40°	11.6	1.9	1.3
40°-50°	14.9	2.4	1.7
50°-60°	6.9	1.1	0.8
60°-70°	5.8	0.9	0.6
70°-80°	6.4	1.0	0.7
80°-90°	10.8	1.7	1.2
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	568.1	91.0	63.1
0°-40°	579.6	92.8	64.4
0°-60°	601.4	96.3	66.8
0°-90°	624.4	100.0	69.4
90°-120°	0.0	0.0	0.0
90°-150°	0.0	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	624.4	100.0	69.4

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5712	5712	5712	5712	5712	
5°	6815	5941	4891	4699	4090	453
15°	812	311	179	432	278	250
25°	118	68	29	31	31	60
35°	68	12	9	11	12	36
45°	14	27	17	24	26	11
55°	8	7	7	7	7	8
65°	6	6	6	6	6	6
75°	9	5	7	6	6	9
85°	9	12	10	11	12	10
90°	8	13	11	13	13	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5712	5712	5712	5712	5712	5712	5712	5712	5712	5712	5712
2.5°	6429	6382	6382	6359	6296	6227	6127	5994	5820	5656	5562
5°	6815	6704	6571	6427	6190	5941	5773	5453	5141	4834	4891
7.5°	4120	4329	4299	4337	4125	4067	4007	3684	3710	3475	3543
10°	2360	2456	2412	2312	2056	1918	1727	1556	1639	1706	1834
12.5°	1453	1469	1415	1265	985	767	574	458	470	524	506
15°	812	784	776	645	452	311	229	189	185	184	179
17.5°	402	394	387	327	227	167	139	108	99	96	94
20°	228	219	209	190	139	120	82	70	64	57	55
22.5°	145	150	142	133	119	82	66	41	34	33	32
25°	118	121	120	112	100	68	40	33	30	30	29
27.5°	103	105	105	99	64	40	28	23	21	22	24
30°	98	98	92	76	53	23	18	15	15	15	16
32.5°	89	87	78	51	18	15	13	11	11	11	11
35°	68	58	42	15	13	12	12	8	7	7	9
37.5°	24	16	14	15	15	18	15	6	5	7	12
40°	20	13	19	21	24	27	22	13	11	14	16
42.5°	15	17	21	23	29	31	25	19	21	22	19
45°	14	22	22	21	27	27	21	19	22	22	17
47.5°	13	22	20	19	22	19	15	16	17	19	15
50°	13	15	15	14	14	13	10	11	11	11	11
52.5°	9	9	8	8	8	7	7	7	7	7	7
55°	8	8	7	7	7	7	7	7	7	7	7
57.5°	7	7	7	7	7	7	7	7	7	7	7
60°	7	7	7	7	7	7	7	7	7	7	7
65°	6	6	6	6	6	6	6	6	6	6	6
70°	5	5	4	4	4	4	4	4	5	4	4
75°	9	7	7	6	6	5	6	6	5	5	7
80°	10	6	7	8	8	9	9	7	6	7	8
85°	9	8	9	10	11	12	11	9	9	10	10
90°	8	12	11	12	13	13	11	12	14	13	11



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5712	5712	5712	5712	5712	5712	5712	5712	5712	5712
2.5°	5444	5311	5182	5070	4927	4853	4817	4791	4650	4661
5°	4779	4731	4714	4720	4699	4598	4405	4240	4124	4090
7.5°	3560	3660	3669	3876	3955	3989	3816	3694	3504	3513
10°	1790	2112	2422	2572	2657	2439	2284	2044	1819	1854
12.5°	559	710	932	1060	1155	1044	941	758	654	653
15°	194	229	306	387	432	408	359	290	271	278
17.5°	94	98	119	145	156	157	146	126	132	140
20°	56	56	60	61	72	75	65	54	51	52
22.5°	32	31	30	31	36	37	33	29	30	31
25°	29	29	28	29	31	32	32	32	32	31
27.5°	22	24	22	23	25	27	26	27	29	28
30°	16	16	16	17	18	19	18	18	19	19
32.5°	12	11	11	13	13	14	14	13	15	15
35°	8	8	9	9	11	11	11	12	11	12
37.5°	8	9	11	14	15	12	11	12	16	22
40°	13	12	18	25	23	14	11	17	25	31
42.5°	16	18	24	29	28	21	22	24	29	32
45°	15	18	21	25	24	21	20	24	24	26
47.5°	14	16	16	17	16	15	17	16	15	16
50°	11	13	11	11	11	11	11	11	11	15
52.5°	7	7	7	7	7	7	7	7	7	7
55°	7	7	7	7	7	7	7	7	7	7
57.5°	7	7	7	7	7	7	7	7	7	7
60°	7	7	7	7	7	7	7	7	7	7
65°	6	6	6	6	6	6	6	6	6	6
70°	5	4	4	4	4	5	5	5	4	4
75°	7	6	6	5	6	7	6	6	6	6
80°	9	8	8	8	8	7	7	7	9	9
85°	9	9	11	12	11	9	8	9	11	12
90°	10	11	13	14	13	11	12	12	12	13

(END OF REPORT)