

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: E395257

Luminaire Tested: **H1499-1420**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: E395257
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: 50MR16NFL, 900 LUMENS
Ballast/Driver: -

Summary

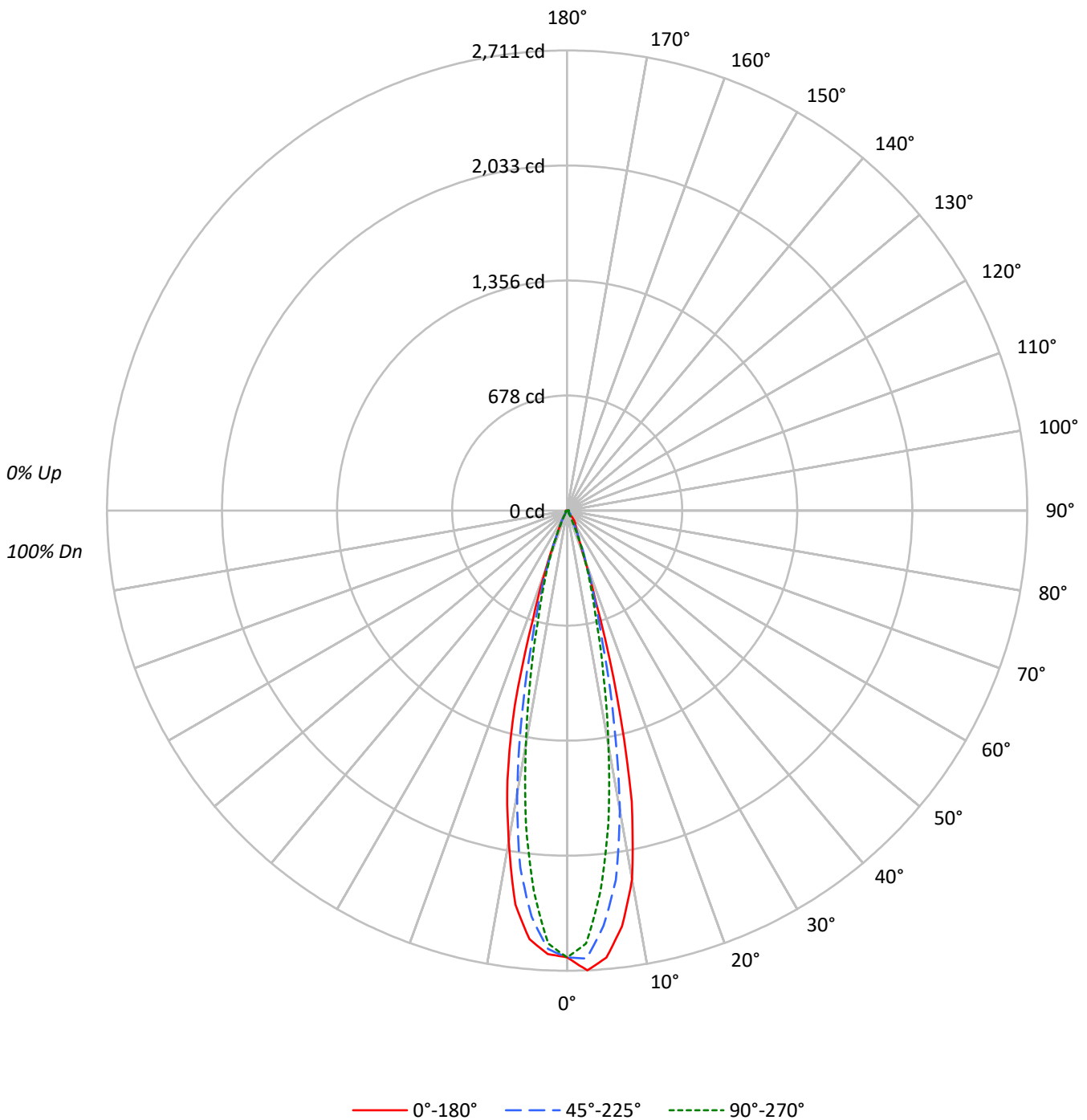
Lumens per Lamp: 900 (1 lamp)
Luminaire Lumens: 569.5 lumens
Efficiency: 63.3%
Efficacy: 9.5 lumens/watt
Spacing Criteria (0/90/45): 0.49 / 0.36 / 0.39
Luminous Opening: Rectangular (W 0.19' x L: 0.12' x H: 0')
CIE Type: Direct

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	50	30	10	50	30	10	0																			
RCR																																														
0	75	75	75	75	74	74	74	74	70	70	70	67	67	67	65	65	65	63																												
1	72	71	69	68	71	69	68	67	67	66	65	64	63	63	62	61	61	60																												
2	70	67	65	63	68	66	64	62	64	62	61	62	61	60	60	59	58	57																												
3	67	64	61	59	66	63	61	59	61	59	58	60	58	57	59	57	56	55																												
4	65	61	59	56	64	61	58	56	59	57	56	58	56	55	57	56	54	53																												
5	63	59	56	54	62	58	56	54	57	55	53	56	55	53	56	54	53	52																												
6	61	57	54	52	60	57	54	52	56	53	52	55	53	51	54	52	51	50																												
7	60	55	52	50	59	55	52	50	54	52	50	53	51	50	53	51	50	49																												
8	58	54	51	49	57	53	51	49	53	50	49	52	50	49	52	50	48	48																												
9	56	52	49	48	56	52	49	48	51	49	47	51	49	47	50	48	47	46																												
10	55	51	48	46	55	50	48	46	50	48	46	50	48	46	49	47	46	45																												

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	1242571	1242571	1242571
5°	1253005	1067234	1201349
10°	1056563	670659	949181
15°	557181	317691	580153
20°	140170	148208	183376
25°	69281	46361	55216
30°	52333	13083	23441
35°	41496	6916	9221
40°	10477	3698	8628
45°	7344	9347	8679
50°	7345	7345	8079
55°	5762	4939	5762
60°	5665	6609	6609
65°	6703	6703	6703
70°	5521	6902	5521
75°	14592	12768	12768
80°	24469	19031	24469
85°	43334	37917	48751



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	210.9	37.0	23.4
10°-20°	243.2	42.7	27.0
20°-30°	60.1	10.5	6.7
30°-40°	14.3	2.5	1.6
40°-50°	12.6	2.2	1.4
50°-60°	6.4	1.1	0.7
60°-70°	5.5	1.0	0.6
70°-80°	6.1	1.1	0.7
80°-90°	10.5	1.8	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°	514.2	90.3	57.1
0°-40°	528.5	92.8	58.7
0°-60°	547.4	96.1	60.8
0°-90°	569.5	100.0	63.3
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°	569.5	100.0	63.3

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2632	2632	2632	2632	2632	
5°	2644	2455	2252	2401	2535	238
15°	1140	805	650	811	1187	302
25°	133	123	89	105	106	68
35°	72	19	12	13	16	37
45°	11	20	14	16	13	9
55°	7	6	6	7	7	6
65°	6	6	6	6	6	5
75°	8	6	7	7	7	8
85°	8	12	7	10	9	9
90°	7	11	10	10	9	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2632	2632	2632	2632	2632	2632	2632	2632	2632	2632	2632
2.5°	2711	2704	2695	2668	2654	2641	2614	2608	2581	2575	2553
5°	2644	2640	2615	2568	2526	2455	2409	2374	2293	2257	2252
7.5°	2471	2469	2450	2364	2294	2195	2128	2037	1923	1897	1859
10°	2204	2202	2142	2038	1926	1790	1698	1583	1473	1441	1399
12.5°	1756	1764	1672	1566	1431	1272	1155	1095	1026	1003	986
15°	1140	1107	1055	1006	941	805	722	698	653	645	650
17.5°	551	595	596	609	535	509	488	479	461	454	451
20°	279	287	308	345	333	326	337	315	303	299	295
22.5°	175	176	185	199	201	205	197	182	171	159	169
25°	133	133	134	139	136	123	102	95	89	88	89
27.5°	112	109	111	109	102	62	58	52	46	48	48
30°	96	94	92	86	57	34	33	28	24	24	24
32.5°	88	87	82	55	25	22	22	18	16	16	16
35°	72	68	53	23	19	19	16	13	11	13	12
37.5°	29	23	23	12	14	24	16	9	12	10	8
40°	17	21	21	9	14	27	19	13	16	9	6
42.5°	13	28	25	11	18	25	18	21	22	11	11
45°	11	26	22	14	17	20	16	21	21	13	14
47.5°	10	19	16	15	14	14	13	16	16	13	13
50°	10	12	10	11	11	10	10	10	10	10	10
52.5°	7	6	7	7	7	6	7	7	6	7	7
55°	7	3	7	6	6	6	6	6	7	6	6
57.5°	7	5	6	6	7	7	7	7	7	7	7
60°	6	5	6	7	7	7	6	7	7	7	7
65°	6	5	5	5	6	6	6	6	6	6	6
70°	4	2	3	4	4	3	3	4	3	4	5
75°	8	4	6	7	6	6	6	4	5	7	7
80°	9	6	7	7	7	10	9	6	7	8	7
85°	8	10	10	7	9	12	10	10	11	8	7
90°	7	15	12	10	11	11	10	14	13	9	10



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2632	2632	2632	2632	2632	2632	2632	2632	2632	2632
2.5°	2567	2562	2571	2577	2585	2602	2611	2613	2619	2615
5°	2236	2249	2307	2347	2401	2456	2501	2516	2545	2535
7.5°	1893	1907	1978	2063	2120	2210	2287	2320	2346	2341
10°	1417	1464	1538	1622	1697	1798	1855	1931	1962	1980
12.5°	1000	1039	1094	1163	1224	1311	1428	1562	1600	1629
15°	649	713	746	775	811	857	983	1120	1143	1187
17.5°	454	488	508	507	516	514	578	671	692	662
20°	308	344	357	350	318	297	298	325	350	365
22.5°	176	189	204	194	175	172	170	162	174	173
25°	93	103	116	113	105	105	105	100	110	106
27.5°	53	57	70	74	71	73	72	67	70	69
30°	26	29	34	35	39	41	44	41	44	43
32.5°	16	17	18	18	19	21	22	21	20	22
35°	13	14	12	12	13	15	13	13	14	16
37.5°	15	19	8	8	14	16	13	10	15	14
40°	21	23	9	9	16	17	16	17	16	14
42.5°	23	23	15	17	18	16	20	24	19	14
45°	19	19	17	20	16	13	20	24	19	13
47.5°	14	14	15	16	14	11	16	17	16	12
50°	9	9	11	11	10	10	11	11	10	11
52.5°	7	6	7	7	7	7	7	7	7	7
55°	6	6	6	6	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	5	6	6	6	6	6	6	6	6
70°	4	4	4	4	4	4	4	4	4	4
75°	5	6	6	5	7	7	6	5	6	7
80°	9	9	7	6	9	9	7	7	8	9
85°	11	11	9	9	10	9	9	11	10	9
90°	12	12	12	13	10	8	12	14	11	9

(END OF REPORT)