

Scaled data based on original data using
LM-46-04 Photometric Testing of Indoor Luminaires Using High Intensity Discharge or
Incandescent Filament Lamps (Reaffirmed 2012)

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: E395776

Luminaire Tested: **H42-338**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: E395776
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H42-338
Description: HALO RECESSED INC - H42 HOUSING, BAFFLE, MAX TILT
Light Source: Q250PAR38FL, 3220 LUMENS
Ballast/Driver: -

Summary

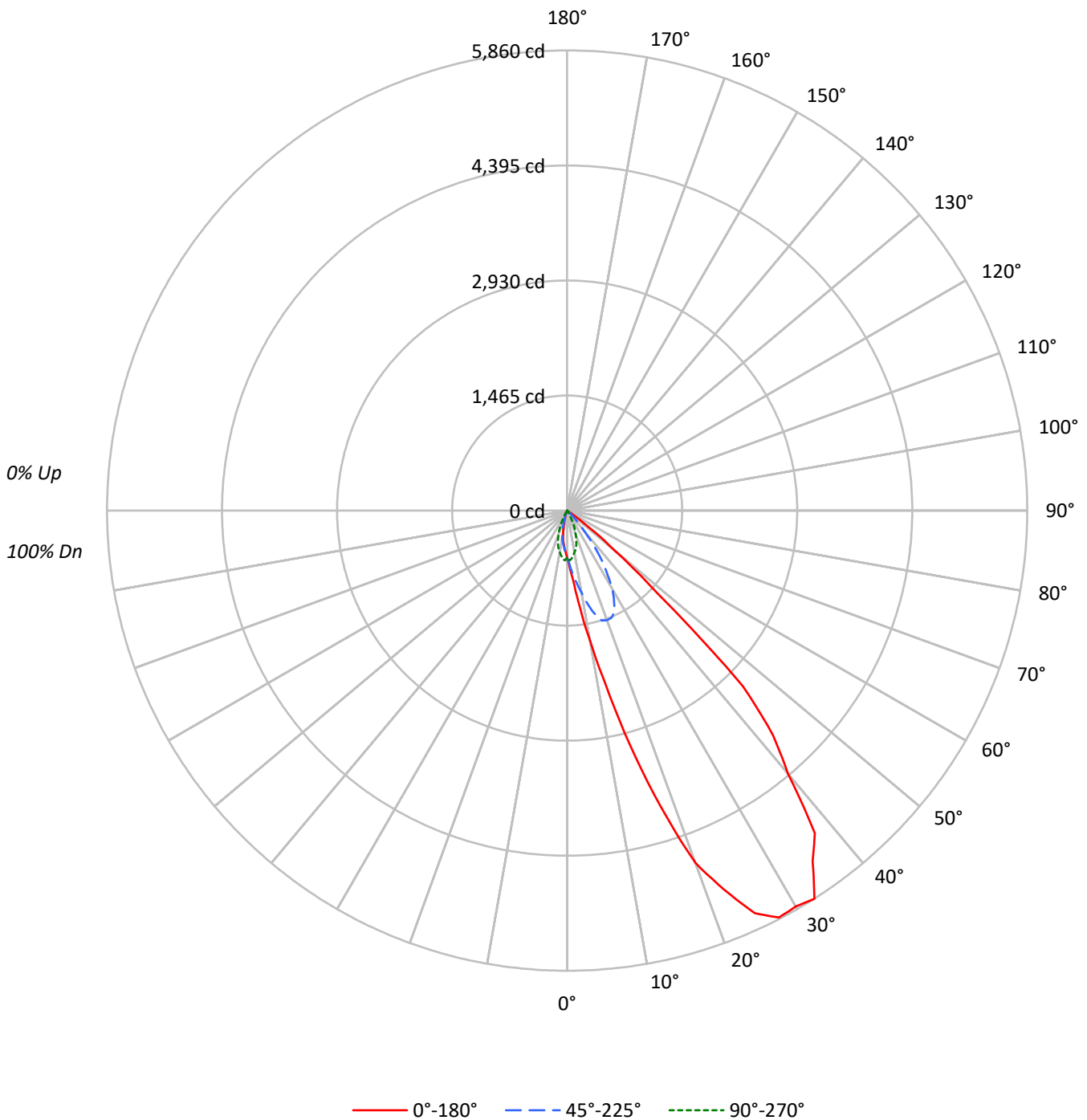
Lumens per Lamp: 3220 (1 lamp)
Luminaire Lumens: 1683.1 lumens
Efficiency: 52.3%
Efficacy: 6.7 lumens/watt
Spacing Criteria (0/90/45): 2.15 / 0.68 / 1.07
Luminous Opening: (L: 0 ' x W: -0.6 ' x H: 0 '
CIE Type: Direct

Input Watts (W): 250
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	62	62	62	62	61	61	61	61	58	58	58	56	56	56	53	53	53	52
1	59	57	56	55	58	56	55	54	54	53	52	52	51	51	50	50	49	48
2	56	53	50	48	54	52	50	48	50	48	47	48	47	46	47	46	45	44
3	52	48	45	43	51	48	45	43	46	44	42	45	43	41	44	42	41	40
4	49	44	41	39	48	44	41	38	43	40	38	42	39	37	41	39	37	36
5	46	41	37	35	45	40	37	35	39	36	34	38	36	34	38	35	34	33
6	43	38	34	31	42	37	34	31	36	33	31	36	33	31	35	33	31	30
7	40	35	31	29	40	34	31	29	34	31	28	33	30	28	32	30	28	27
8	38	32	29	26	37	32	28	26	31	28	26	31	28	26	30	28	26	25
9	36	30	26	24	35	30	26	24	29	26	24	28	26	24	28	25	24	23
10	34	28	24	22	33	27	24	22	27	24	22	27	24	22	26	24	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	Luminous shape not found,		
5°	reference photometric report, or contact		
10°	the photometric lab for calculations.		
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	64.7	3.8	2.0
10°-20°	265.0	15.7	8.2
20°-30°	542.5	32.2	16.8
30°-40°	541.3	32.2	16.8
40°-50°	246.1	14.6	7.6
50°-60°	21.7	1.3	0.7
60°-70°	1.5	0.1	0.0
70°-80°	0.3	0.0	0.0
80°-90°	0.0	0.0	0.0
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°	872.3	51.8	27.1
0°-40°	1413.6	84.0	43.9
0°-60°	1681.4	99.9	52.2
0°-90°	1683.1	100.0	52.3
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°	1683.1	100.0	52.3

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	591	591	591	591	591	
5°	892	807	619	460	446	111
15°	3090	1366	448	197	101	934
25°	5656	1418	181	22	11	2563
35°	5449	755	17	3	3	3373
45°	3161	89	3	3	3	2123
55°	100	1	4	4	3	185
65°	1	0	2	2	2	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	20°	22.5°	25°	30°
0°	591	591	591	591	591	591	591	591	591	591	591
2.5°	715	709	720	700	724	714	721	713	706	708	705
5°	892	899	912	904	905	911	901	902	881	883	852
7.5°	1239	1242	1235	1225	1238	1193	1206	1162	1148	1113	1083
10°	1684	1667	1675	1649	1625	1649	1651	1534	1464	1455	1353
12.5°	2264	2301	2266	2255	2226	2072	2102	1979	1960	1875	1674
15°	3090	3041	3024	2942	2930	2834	2778	2565	2459	2322	2080
17.5°	3943	3877	3831	3788	3728	3576	3477	3169	2963	2853	2467
20°	4775	4797	4727	4598	4513	4373	4193	3788	3557	3380	2907
22.5°	5224	5311	5222	5121	5023	4829	4668	4308	4067	3852	3279
25°	5656	5647	5579	5434	5348	5163	5044	4694	4454	4141	3522
27.5°	5842	5842	5706	5564	5502	5341	5220	4927	4714	4371	3630
30°	5823	5821	5685	5573	5533	5413	5244	4897	4698	4338	3471
32.5°	5860	5895	5601	5294	5161	4906	4696	4281	4125	3816	2982
35°	5449	5474	5220	4841	4518	4198	4011	3650	3482	3227	2432
37.5°	5182	5166	4782	4436	4055	3692	3480	3185	2968	2674	1831
40°	4373	4310	3982	3729	3487	3311	3152	2764	2399	2058	1228
42.5°	3882	3798	3509	3244	2998	2841	2687	2135	1773	1359	699
45°	3161	2951	2757	2551	2277	2070	1723	1326	1027	732	434
47.5°	1557	1506	1490	1242	1186	1101	994	737	613	481	289
50°	790	730	685	599	547	521	542	396	309	257	122
52.5°	353	373	456	282	247	257	217	167	114	79	40
55°	100	102	85	145	70	57	86	28	15	9	5
57.5°	3	3	2	3	3	2	2	2	2	1	1
60°	2	1	1	1	1	1	1	1	1	1	1
62.5°	1	1	1	1	1	1	1	1	1	1	1
65°	1	1	1	1	1	1	1	1	1	0	0
67.5°	1	1	1	0	1	1	1	0	0	0	0
70°	0	0	0	0	0	0	0	0	0	0	0
72.5°	0	0	0	0	0	0	0	0	0	0	0
75°	0	0	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	35°	40°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	591	591	591	591	591	591	591	591	591
2.5°	704	694	688	664	635	587	538	523	519
5°	850	822	807	709	619	526	460	451	446
7.5°	1028	970	931	744	579	463	416	401	387
10°	1253	1153	1066	757	538	421	359	320	298
12.5°	1543	1375	1228	753	505	357	285	232	196
15°	1864	1596	1366	740	448	311	197	121	101
17.5°	2133	1772	1469	702	390	228	108	63	58
20°	2384	1892	1485	634	316	151	57	38	33
22.5°	2600	1929	1478	566	254	73	36	23	20
25°	2738	1939	1418	497	181	41	22	13	11
27.5°	2713	1829	1293	430	90	28	11	8	7
30°	2479	1630	1148	354	42	16	7	5	5
32.5°	2032	1342	938	226	32	9	5	3	3
35°	1632	1083	755	101	17	6	3	2	3
37.5°	1172	821	547	40	10	4	2	2	3
40°	734	497	328	22	6	3	2	3	3
42.5°	425	267	176	12	4	3	3	3	3
45°	279	156	89	7	3	3	3	3	3
47.5°	159	79	36	4	3	3	3	3	3
50°	58	28	14	2	3	4	3	3	3
52.5°	18	7	3	2	3	4	3	3	3
55°	2	1	1	2	4	4	4	3	3
57.5°	1	1	1	2	4	4	4	3	3
60°	1	1	1	1	4	4	3	2	2
62.5°	1	1	1	1	3	4	3	2	2
65°	0	0	0	1	2	3	2	2	2
67.5°	0	0	0	1	1	2	1	1	2
70°	0	0	0	1	1	1	1	1	1
72.5°	0	0	0	1	1	1	1	1	1
75°	0	0	0	0	0	0	0	0	0
80°	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)