

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: E395777

Luminaire Tested: **H42-338**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: E395777
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: Q250PAR38SP, 3220 LUMEN
Ballast/Driver: -

Summary

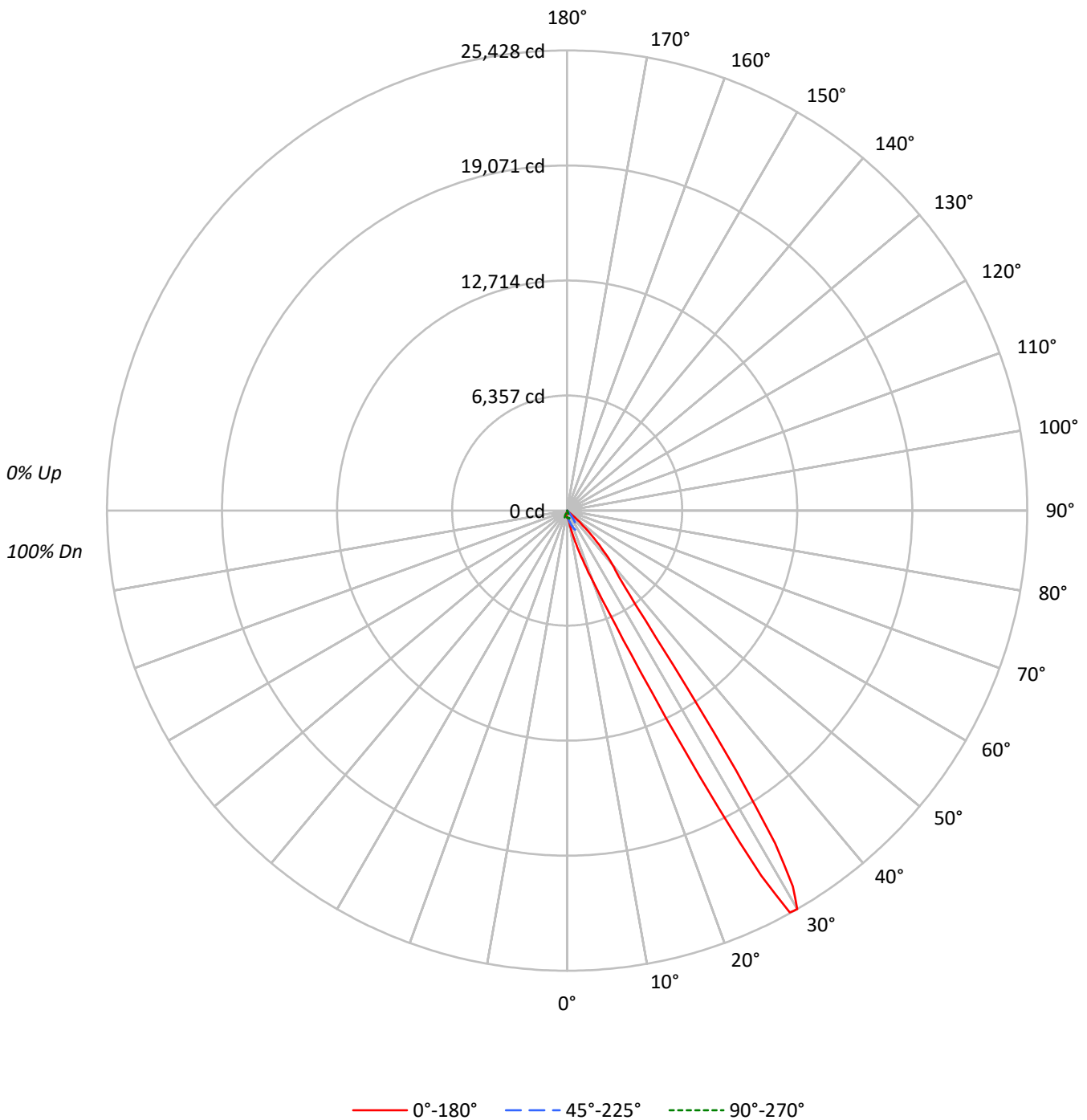
Lumens per Lamp: 3220 (1 lamp)
Luminaire Lumens: 1998.4 lumens
Efficiency: 62.1%
Efficacy: 8.0 lumens/watt
Spacing Criteria (0/90/45): 2.13 / 0.82 / 1.11
Luminous Opening: (L: 0 ' x W: -0.6 ' x H: 0 '
CIE Type: Direct

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



TEST NUMBER: E395777
CATALOG NUMBER: H42-338

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	74	74	74	74	72	72	72	72	69	69	69		66	66	66		63	63	63	62
1	70	68	66	65	68	67	65	64	64	63	62		62	61	60		60	59	58	57
2	66	62	60	57	64	61	59	57	59	57	55		57	56	54		56	54	53	52
3	62	57	54	51	61	56	53	51	55	52	50		53	51	49		52	50	48	47
4	58	53	49	46	57	52	48	45	51	47	45		49	46	44		48	46	44	43
5	54	48	44	41	53	48	44	41	47	43	40		45	42	40		44	42	40	39
6	51	44	40	37	50	44	40	37	43	39	37		42	39	36		41	38	36	35
7	48	41	37	33	47	40	36	33	40	36	33		39	35	33		38	35	33	32
8	45	38	33	30	44	37	33	30	37	33	30		36	32	30		35	32	30	29
9	42	35	30	28	41	34	30	28	34	30	27		33	30	27		33	30	27	26
10	39	32	28	25	38	32	28	25	31	28	25		31	27	25		30	27	25	24

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°			



TEST NUMBER: E395777
 CATALOG NUMBER: H42-338

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	38.2	1.9	1.2
10°-20°	209.9	10.5	6.5
20°-30°	773.5	38.7	24.0
30°-40°	793.6	39.7	24.6
40°-50°	174.9	8.8	5.4
50°-60°	5.2	0.3	0.2
60°-70°	1.4	0.1	0.0
70°-80°	0.9	0.0	0.0
80°-90°	0.9	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°	1021.5	51.1	31.7
0°-40°	1815.1	90.8	56.4
0°-60°	1995.2	99.8	62.0
0°-90°	1998.4	100.0	62.1
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°	1998.4	100.0	62.1

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	373	373	373	373	373	
5°	403	390	388	340	343	46
15°	1922	758	433	90	30	641
25°	11091	1139	86	8	2	6528
35°	8557	692	11	0	0	7155
45°	1755	49	2	0	0	1409
55°	11	2	4	2	0	20
65°	1	2	3	1	0	1
75°	0	2	2	0	0	0
85°	0	2	2	0	0	0
90°	0	2	2	0	0	



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 CATALOG NUMBER: H42-338

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	20°	22.5°	25°	30°
0°	373	373	373	373	373	373	373	373	373	373	373
5°	403	403	403	405	403	405	405	405	403	403	398
10°	616	651	646	621	646	625	638	619	597	602	550
15°	1922	1970	2059	2226	2274	2278	2393	2239	2143	1997	1621
17.5°	2849	2903	3117	3286	3352	3601	3545	3359	3162	2879	2304
20°	4129	4288	4476	4592	4729	4834	4635	4185	3836	3504	2794
21°	4879	4889	5266	5170	5339	5309	5087	4414	4053	3710	2941
22°	5780	5902	6230	6033	5986	5874	5442	4692	4279	3905	3106
23°	6925	7075	7309	7005	6718	6465	5864	4935	4476	4044	3188
24°	8670	8754	8387	7966	7572	7056	6334	5198	4663	4177	3310
25°	11091	11081	10546	9458	8535	7910	6831	5461	4887	4401	3415
26°	14356	14080	12752	11400	9955	8773	7516	5684	5112	4523	3485
27°	18466	18456	16261	13953	11616	9708	8126	6043	5348	4720	3509
28°	22857	22688	19404	15904	13117	10650	8867	6465	5658	4860	3562
29°	25390	25041	22350	17846	13924	11479	9364	6806	5846	5067	3618
30°	25428	25053	22050	17978	14328	11365	9543	6934	5911	5142	3667
31°	24227	23658	20558	16953	13380	11175	9274	6709	5658	5048	3661
32°	21678	20051	16927	14337	11982	10368	8567	6339	5461	4718	3532
33°	17154	16073	13953	12232	10134	8927	7709	5733	4973	4314	3121
34°	12198	12254	10969	9897	8717	7900	6859	5245	4391	3913	2821
35°	8557	9092	8510	8349	7347	6690	6060	4654	4095	3537	2509
36°	6380	6850	6814	6784	6296	5840	5339	4166	3697	3078	2169
37°	5375	5592	5817	5789	5500	5142	4748	3603	3190	2712	1833
38°	4654	4917	5245	5133	4842	4663	4204	3256	2824	2342	1606
39°	4241	4494	4738	4579	4354	4170	3716	2787	2370	2030	1269
40°	3903	4129	4241	4144	3950	3584	3218	2470	2087	1642	981
42.5°	2815	2927	2890	2740	2590	2425	1939	1505	1199	933	540
45°	1755	1756	1644	1475	1454	1361	1117	799	587	330	150
50°	68	69	90	88	75	73	62	60	51	45	34
55°	11	11	13	13	39	13	15	9	9	8	8
60°	2	2	2	2	0	0	0	2	2	2	2
70°	0	0	0	0	0	0	0	0	0	0	2
80°	0	0	0	0	0	0	0	0	0	0	2
90°	0	0	0	0	0	0	0	0	0	0	2



TEST NUMBER: E395777
 CATALOG NUMBER: H42-338

CANDELA DISTRIBUTION (continued):

	35°	40°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	373	373	373	373	373	373	373	373	373
5°	394	390	390	400	388	358	340	338	343
10°	544	539	539	512	441	396	336	270	268
15°	1231	963	758	572	433	349	90	39	30
17.5°	1693	1272	901	567	428	156	38	13	8
20°	2121	1490	1034	569	396	68	17	9	6
21°	2228	1610	1094	567	349	49	13	8	4
22°	2319	1642	1111	555	270	36	11	8	4
23°	2406	1702	1156	537	180	24	9	6	4
24°	2500	1691	1137	514	118	19	9	6	2
25°	2507	1704	1139	503	86	15	8	4	2
26°	2530	1687	1102	495	64	13	6	4	2
27°	2513	1674	1094	477	47	11	6	2	2
28°	2511	1616	1032	439	36	11	4	2	2
29°	2479	1561	993	345	26	9	4	2	0
30°	2432	1503	914	257	21	9	4	0	0
31°	2336	1439	874	180	24	8	2	0	0
32°	2312	1389	813	137	17	6	2	0	0
33°	2196	1317	784	111	15	6	0	0	0
34°	2023	1184	745	90	13	4	0	0	0
35°	1740	1053	692	71	11	4	0	0	0
36°	1492	897	567	47	9	2	0	0	0
37°	1207	734	464	36	8	2	0	0	0
38°	989	537	388	28	8	2	0	0	0
39°	722	450	345	23	6	2	0	0	0
40°	593	387	265	19	6	2	0	0	0
42.5°	289	160	99	11	4	2	0	0	0
45°	92	73	49	6	2	2	0	0	0
50°	23	13	8	2	2	2	2	0	0
55°	4	2	2	2	4	2	2	0	0
60°	2	2	2	2	4	4	2	0	0
70°	2	2	2	2	2	0	0	0	0
80°	2	2	2	2	2	0	0	0	0
90°	2	2	2	2	2	0	0	0	0

(END OF REPORT)