

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: E395574

Luminaire Tested: **H46-460**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-46-04  
Report Number: E395574  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: H46-460  
Description: HALO RECESSED INC - H46 HOUSING, WALL WASH  
Light Source: 300R40FL, 3650 LUMENS  
Ballast/Driver: -

**Summary**

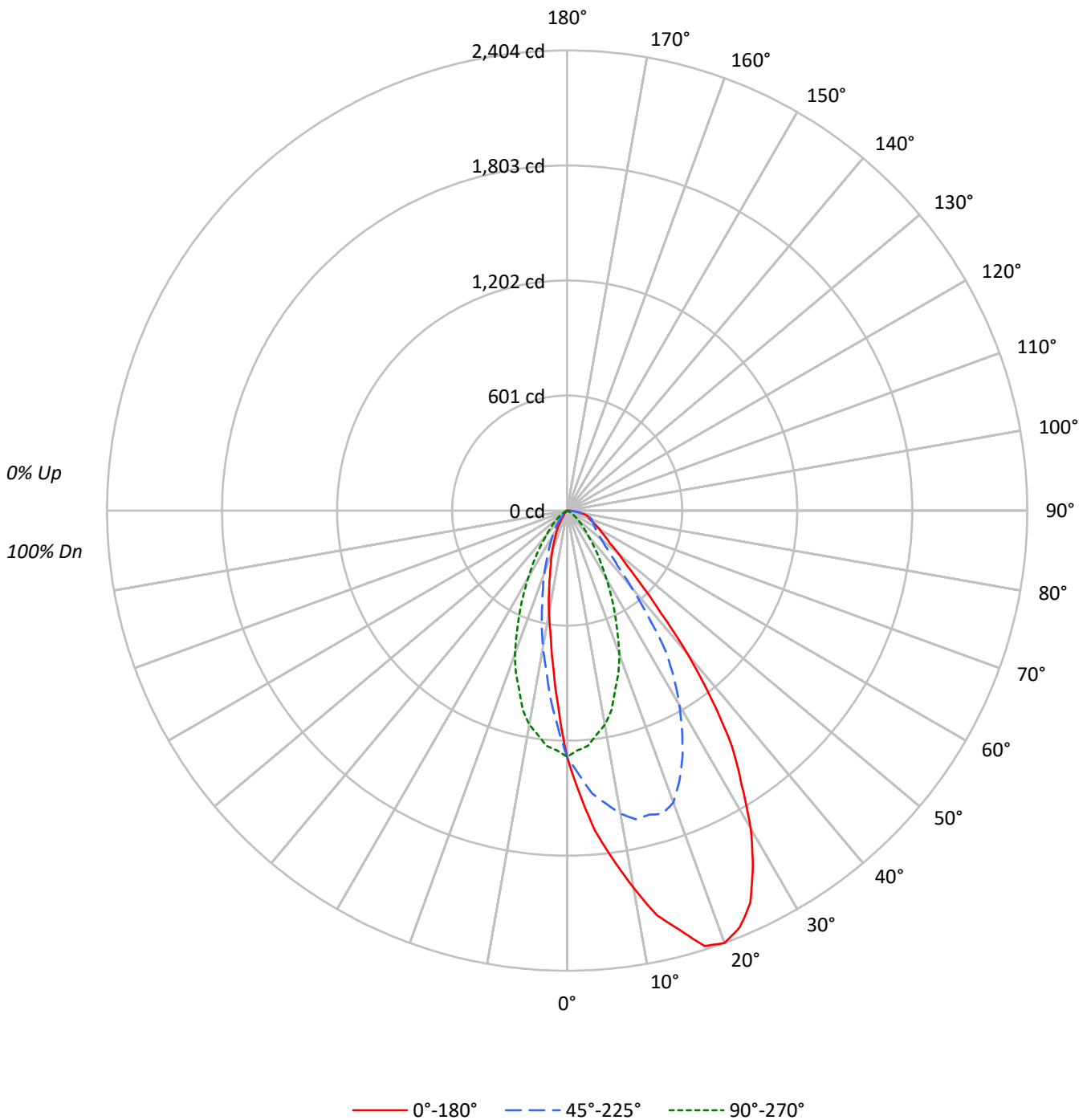
Lumens per Lamp: 3650 (1 lamp)  
Luminaire Lumens: 1457.7 lumens  
Efficiency: 39.9%  
Efficacy: 4.9 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.74 / 0.94  
Luminous Opening: (L: 0 ' x W: -0.44 ' x H: 0 '  
CIE Type: Direct

Input Watts (W): 300  
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	48	48	48	48	46	46	46	46	44	44	44		42	42	42		41	41	41	40
1	45	43	42	41	44	42	41	40	41	40	39		39	38	38		38	37	37	36
2	42	39	37	36	41	39	37	35	37	36	34		36	35	34		35	34	33	32
3	39	36	34	32	38	35	33	31	34	32	31		33	32	30		32	31	30	29
4	37	33	30	28	36	33	30	28	32	30	28		31	29	27		30	28	27	26
5	35	31	28	26	34	30	28	26	29	27	25		29	27	25		28	26	25	24
6	33	28	26	24	32	28	25	23	27	25	23		27	25	23		26	24	23	22
7	31	26	24	22	30	26	23	22	26	23	21		25	23	21		25	23	21	21
8	29	25	22	20	28	24	22	20	24	22	20		23	21	20		23	21	20	19
9	27	23	20	19	27	23	20	19	22	20	18		22	20	18		22	20	18	18
10	26	22	19	17	26	22	19	17	21	19	17		21	19	17		21	19	17	17

**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°	116.0	8.0	3.2
10°-20°	309.9	21.3	8.5
20°-30°	383.4	26.3	10.5
30°-40°	299.6	20.6	8.2
40°-50°	147.1	10.1	4.0
50°-60°	84.3	5.8	2.3
60°-70°	60.9	4.2	1.7
70°-80°	42.6	2.9	1.2
80°-90°	13.5	0.9	0.4
90°-100°	0.4	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°	809.3	55.5	22.2
0°-40°	1109.0	76.1	30.4
0°-60°	1340.3	91.9	36.7
0°-90°	1457.3	100.0	39.9
90°-120°	0.4	0.0	0.0
90°-150°	0.4	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	1457.7	100.0	39.9

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1286	1286	1286	1286	1286	
5°	1679	1482	1234	986	826	169
15°	2266	1645	968	500	345	645
25°	2263	1425	587	228	143	1021
35°	1500	897	274	95	42	912
45°	545	316	113	24	20	449
55°	250	190	40	13	7	228
65°	155	150	7	5	3	154
75°	112	110	2	2	1	112
85°	34	28	0	0	0	37
90°	11	8	0	0	0	6
95°	0	0	0	0	0	0
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°	1286	1286	1286	1286	1286	1286	1286	1286	1286
2.5°	1479	1443	1377	1295	1254	1212	1130	1066	1034
5°	1679	1609	1482	1320	1234	1145	986	877	826
7.5°	1837	1728	1543	1305	1180	1049	838	712	658
10°	2001	1855	1608	1299	1136	965	726	599	545
12.5°	2165	1973	1652	1269	1068	858	612	489	440
15°	2266	2031	1645	1196	968	735	500	387	345
17.5°	2385	2112	1661	1144	889	639	419	317	280
20°	2404	2107	1622	1063	797	549	349	262	231
22.5°	2357	2040	1531	947	685	447	278	205	181
25°	2263	1934	1425	833	587	369	228	166	143
27.5°	2101	1781	1300	717	492	301	184	129	111
30°	1918	1611	1172	603	406	245	148	101	83
32.5°	1696	1430	1039	502	335	204	120	77	60
35°	1500	1256	897	418	274	169	95	55	42
37.5°	1237	1005	693	332	214	133	71	36	28
40°	980	767	518	273	173	107	51	27	25
42.5°	724	562	389	228	138	83	33	22	21
45°	545	431	316	197	113	65	24	21	20
47.5°	422	345	265	169	89	46	20	16	15
50°	347	293	233	153	71	33	19	15	11
52.5°	284	246	201	132	54	22	17	11	6
55°	250	226	190	123	40	17	13	7	7
57.5°	216	201	174	110	27	14	9	6	6
60°	196	186	166	102	17	11	7	6	5
62.5°	173	169	157	93	10	8	6	4	4
65°	155	154	150	86	7	6	5	4	3
67.5°	134	140	141	77	4	3	3	2	2
70°	122	132	138	67	3	3	2	2	2
72.5°	121	130	129	56	3	2	2	1	1
75°	112	115	110	45	2	2	2	1	1
77.5°	94	95	88	33	1	1	1	1	1
80°	76	75	68	23	1	1	1	0	0
82.5°	55	54	48	16	1	0	0	0	0
85°	34	34	28	8	0	0	0	0	0
87.5°	19	19	15	3	0	0	0	0	0
90°	11	9	8	2	0	0	0	0	0
92.5°	0	0	0	0	0	0	0	0	0
95°	0	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0	0	0
125°	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°
130°	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0

(END OF REPORT)