

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: H23489

Luminaire Tested: **H802E-810WW**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-46-04  
Report Number: H23489  
Test Lab: PEACHTREE CITY  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: H802E-810WW  
Description: HALO 8 IN FLUORESCENT RECESSED DOWNLIGHT  
WITH SPECULAR REFLECTOR AND WALLWASH  
Light Source: TWO 4 PIN DTT COMPACT FLUORESCENT LAMPS  
TWO CF18W/827 18WATTS  
Ballast/Driver: -

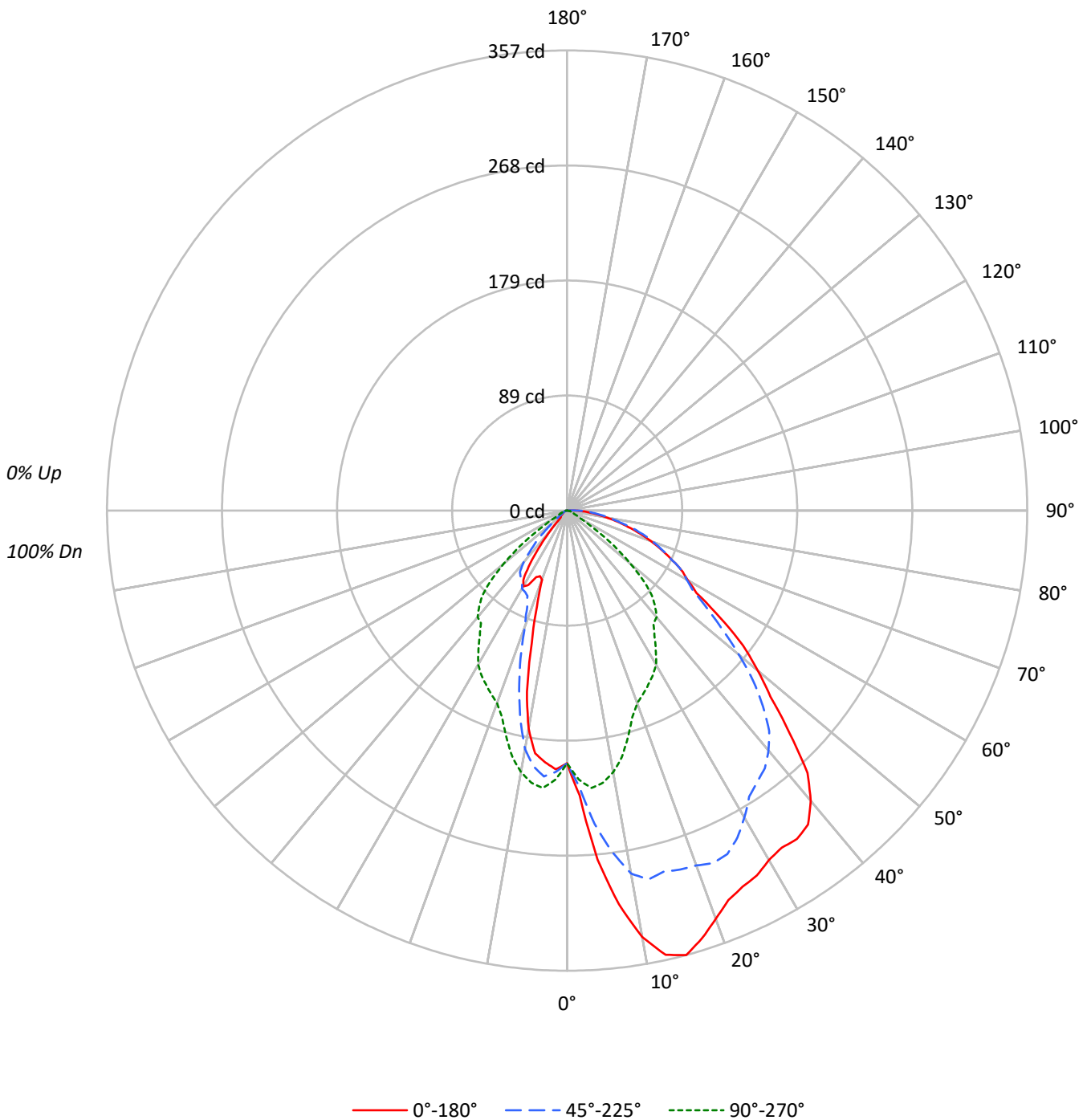
**Summary**

Lumens per Lamp: 1250 (2 lamps)  
Luminaire Lumens: 477.3 lumens  
Efficiency: 19.1%  
Efficacy: 14.5 lumens/watt  
Spacing Criteria (0/90/45): 1.41 / 1.07 / 1.37  
Luminous Opening: Rectangular (W 0.54' x L: 0.29' x H: 0')  
CIE Type: Direct

Input Watts (W): 33  
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	23	23	23	23	22	22	22	22	21	21	21	20	20	20	19	19	19	19
1	21	20	19	19	20	20	19	18	19	18	18	18	18	17	17	17	17	16
2	19	18	17	16	19	18	16	16	17	16	15	16	15	15	16	15	14	14
3	18	16	15	13	17	16	14	13	15	14	13	15	14	13	14	13	13	12
4	16	14	13	12	16	14	13	12	14	12	11	13	12	11	13	12	11	11
5	15	13	11	10	15	13	11	10	12	11	10	12	11	10	12	11	10	9
6	14	12	10	9	14	12	10	9	11	10	9	11	10	9	11	10	9	8
7	13	11	9	8	13	11	9	8	10	9	8	10	9	8	10	9	8	8
8	12	10	8	7	12	10	8	7	9	8	7	9	8	7	9	8	7	7
9	12	9	8	7	11	9	8	7	9	7	7	9	7	7	8	7	7	6
10	11	8	7	6	11	8	7	6	8	7	6	8	7	6	8	7	6	6

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	13354	13354	13354
5°	18603	14773	13405
10°	23245	14252	11899
15°	25181	12837	7477
20°	24434	11528	4133
25°	24206	11201	4285
30°	24624	10857	5350
35°	25867	9814	4159
40°	26148	9606	1779
45°	23510	8961	674
50°	20457	6784	636
55°	17224	3920	594
60°	14716	1499	545
65°	14348	967	484
70°	13745	797	398
75°	12899	790	526
80°	12163	785	392
85°	13289	782	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	21.8	4.6	0.9
10°-20°	59.6	12.5	2.4
20°-30°	82.9	17.4	3.3
30°-40°	98.7	20.7	3.9
40°-50°	90.2	18.9	3.6
50°-60°	56.5	11.8	2.3
60°-70°	36.0	7.5	1.4
70°-80°	22.1	4.6	0.9
80°-90°	8.9	1.9	0.4
90°-100°	0.6	0.1	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°	164.3	34.4	6.6
0°-40°	263.0	55.1	10.5
0°-60°	409.6	85.8	16.4
0°-90°	476.7	99.9	19.1
90°-120°	0.6	0.1	0.0
90°-150°	0.6	0.1	0.0
90°-180°	1.0	0.2	0.0
0°-180°	477.3	100.0	19.1

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	196	196	196	196	196	
5°	272	244	216	207	196	28
15°	357	290	182	144	106	99
25°	322	294	149	73	57	149
35°	311	257	118	63	50	193
45°	244	215	93	33	7	188
55°	145	133	33	6	5	131
65°	89	89	6	3	3	88
75°	49	52	3	2	2	52
85°	17	20	1	1	0	17
90°	7	8	0	0	0	4
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°	196	196	196	196	196	196	196	196	196
2.5°	221	220	214	210	209	207	203	205	201
5°	272	264	244	224	216	214	207	207	196
7.5°	308	297	267	230	213	213	200	204	190
10°	336	322	286	235	206	204	188	186	172
12.5°	353	334	293	233	196	190	167	162	144
15°	357	336	290	226	182	174	144	123	106
17.5°	348	333	292	219	168	155	120	92	78
20°	337	332	293	218	159	141	96	66	57
22.5°	327	324	296	218	154	132	81	58	55
25°	322	315	294	217	149	125	73	68	57
27.5°	319	309	286	215	144	118	71	82	65
30°	313	300	275	213	138	108	70	88	68
32.5°	310	292	263	204	128	95	65	81	63
35°	311	292	257	197	118	84	63	71	50
37.5°	307	288	252	194	110	78	60	54	34
40°	294	278	243	186	108	80	53	36	20
42.5°	276	263	232	172	101	80	42	20	8
45°	244	238	215	157	93	73	33	9	7
47.5°	214	208	196	140	80	62	23	8	7
50°	193	184	174	122	64	48	15	7	6
52.5°	172	162	152	103	49	34	9	6	5
55°	145	137	133	85	33	20	6	5	5
57.5°	119	115	116	68	19	9	5	5	4
60°	108	106	107	58	11	5	4	4	4
62.5°	100	99	100	58	8	4	3	3	3
65°	89	89	89	51	6	3	3	3	3
67.5°	79	80	80	45	5	3	3	2	2
70°	69	70	71	40	4	3	2	2	2
72.5°	59	60	62	36	4	2	2	2	2
75°	49	50	52	31	3	2	2	2	2
77.5°	40	41	42	27	2	2	1	1	1
80°	31	33	34	22	2	1	1	1	1
82.5°	24	26	27	17	2	1	1	1	1
85°	17	19	20	13	1	1	1	0	0
87.5°	12	13	14	9	1	1	0	0	0
90°	7	7	8	5	0	0	0	0	0
92.5°	0	1	3	1	0	0	0	0	0
95°	0	0	0	0	0	0	0	0	0
97.5°	0	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0	0
102.5°	0	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0	0
107.5°	0	0	0	0	0	0	0	0	0
110°	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°
112.5°	0	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0	0
117.5°	0	0	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0	0	0
122.5°	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0
127.5°	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0
132.5°	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0
137.5°	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0

(END OF REPORT)