

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: H35036

Luminaire Tested: **H800-810WW**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-46-04  
Report Number: H35036  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: H800-810WW  
Description: HALO PL RECESSED DOWNLIGHT  
SPECULAR REFLECTOR W/BAFFLE & WALLWASH TRIM  
HORIZONTAL LAMP SETTING W/TUBES HORIZONTAL  
Light Source: (2) 13W/TT 13 WATTS 900 LUMENS EACH  
10mm TWIN TUBE COMPACT FLUORESCENT  
GX23 D-2 BASE  
Ballast/Driver: -

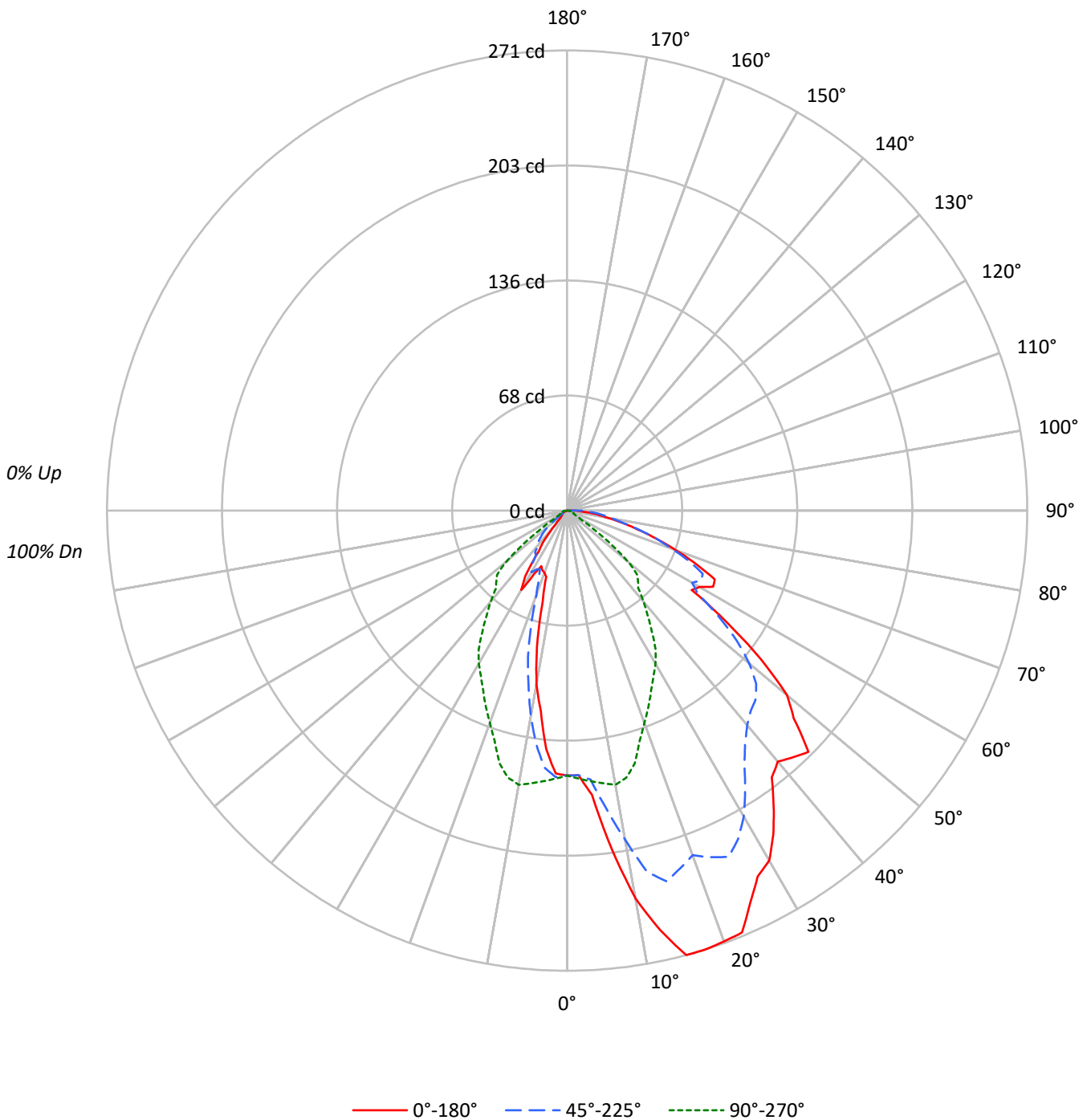
**Summary**

Lumens per Lamp: 900 (2 lamps)  
Luminaire Lumens: 354.6 lumens  
Efficiency: 19.7%  
Efficacy: 9.8 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.03 / 1.27  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Direct

Input Watts (W): 36  
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: H35036  
CATALOG NUMBER: H800-810WW

### 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	23	23	23	23	22	22	22	21	21	21	20	20	20	20
1	22	21	20	19	21	20	20	19	19	19	18	19	18	18	18	18	17	17
2	20	18	17	16	19	18	17	16	17	16	15	17	16	15	16	15	15	14
3	18	16	15	14	18	16	15	13	15	14	13	15	14	13	14	13	13	12
4	17	15	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	7
8	12	10	8	7	12	10	8	7	10	8	7	9	8	7	9	8	7	7
9	12	9	8	7	11	9	8	7	9	7	7	9	7	6	8	7	6	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°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
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°	15.2	4.3	0.8
10°-20°	43.2	12.2	2.4
20°-30°	60.3	17.0	3.3
30°-40°	66.4	18.7	3.7
40°-50°	65.2	18.4	3.6
50°-60°	44.4	12.5	2.5
60°-70°	33.1	9.3	1.8
70°-80°	19.2	5.4	1.1
80°-90°	7.2	2.0	0.4
90°-100°	0.4	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°	118.6	33.4	6.6
0°-40°	185.0	52.2	10.3
0°-60°	294.6	83.1	16.4
0°-90°	354.2	99.9	19.7
90°-120°	0.4	0.1	0.0
90°-150°	0.4	0.1	0.0
90°-180°	0.0	0.0	0.0
0°-180°	354.6	100.0	19.7

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	156	156	156	156	156	
5°	168	159	160	152	141	18
15°	271	226	154	89	56	75
25°	255	225	117	38	36	118
35°	212	182	87	32	29	133
45°	201	157	59	22	5	147
55°	115	109	19	5	3	106
65°	96	88	4	2	2	88
75°	43	44	3	1	1	47
85°	12	17	1	0	0	12
90°	5	8	1	0	0	2
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



TEST NUMBER: H35036  
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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	156	156	156	156	156	156	156	156	156
2.5°	156	156	156	157	158	159	157	156	155
5°	168	163	159	158	160	160	152	144	141
7.5°	201	193	177	164	162	158	139	124	119
10°	232	222	197	172	164	150	123	108	104
12.5°	253	248	218	174	161	137	105	94	82
15°	271	256	226	171	154	121	89	66	56
17.5°	271	258	221	167	142	103	70	45	41
20°	270	260	216	162	133	92	53	39	39
22.5°	269	259	221	161	125	83	43	37	38
25°	255	248	225	160	117	74	38	36	36
27.5°	243	235	218	156	110	66	39	40	42
30°	238	227	208	153	104	59	42	50	54
32.5°	226	219	195	148	97	51	39	44	46
35°	212	203	182	139	87	43	32	32	29
37.5°	198	191	172	127	78	40	31	28	23
40°	193	187	165	120	70	40	26	21	11
42.5°	197	191	160	114	62	41	25	13	6
45°	201	193	157	107	59	42	22	7	5
47.5°	181	183	151	99	56	42	19	5	4
50°	169	167	140	89	47	36	14	4	4
52.5°	144	143	126	76	33	22	9	4	4
55°	115	116	109	60	19	11	5	3	3
57.5°	87	95	91	46	9	5	3	3	3
60°	90	94	85	38	6	3	3	2	2
62.5°	97	97	89	39	5	3	2	2	2
65°	96	95	88	44	4	2	2	2	2
67.5°	82	82	78	41	4	2	2	2	2
70°	68	68	65	36	3	2	2	1	1
72.5°	55	56	55	31	3	2	1	1	1
75°	43	45	44	26	3	1	1	1	1
77.5°	33	35	34	21	2	1	1	1	1
80°	24	28	27	17	2	1	1	1	1
82.5°	18	21	22	14	2	1	1	0	0
85°	12	15	17	11	1	1	0	0	0
87.5°	7	10	12	8	1	1	0	0	0
90°	5	6	8	5	1	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
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)