

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: H23306

Luminaire Tested: **H800HP-810WB**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-46-04  
Report Number: H23306  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: H800HP-810WB  
Description: HALO 8" DIA RECESSED DOWNLIGHT  
SPECULAR REFLECTOR WITH WHITE BAFFLE  
0 DEG AXIS IS PARALLEL TO LAMPS  
Light Source: (2) F13TT 13 WATTS 900 LUMENS  
TWIN TUBE COMPACT FLUORESCENT  
Ballast/Driver: -

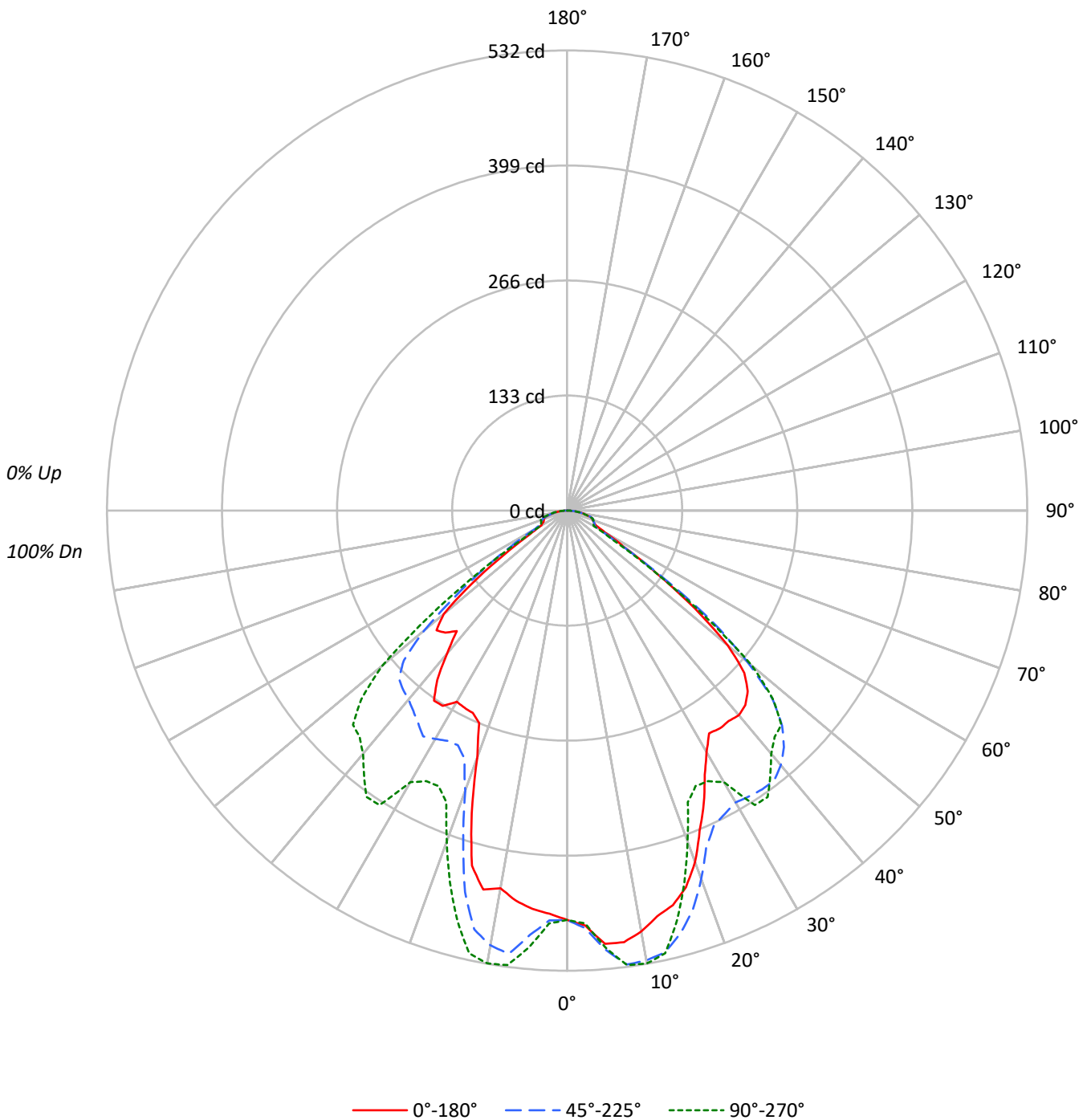
**Summary**

Lumens per Lamp: 900 (2 lamps)  
Luminaire Lumens: 970.1 lumens  
Efficiency: 53.9%  
Efficacy: 30.3 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.31 / 1.38  
Luminous Opening: (L: 0 ' x W: -0.58 ' x H: 0 '  
CIE Type: Direct

Input Watts (W): 32  
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	64	64	64	64	63	63	63	63	60	60	60		57	57	57		55	55	55	54
1	60	58	56	54	58	56	55	53	54	53	52		52	51	50		50	49	49	47
2	55	52	49	46	54	51	48	45	49	46	44		47	45	43		46	44	43	41
3	51	46	43	40	50	46	42	39	44	41	39		43	40	38		41	39	37	36
4	47	42	38	35	46	41	37	34	40	37	34		39	36	33		38	35	33	32
5	44	38	34	30	43	37	33	30	36	33	30		35	32	30		34	32	29	28
6	41	34	30	27	40	34	30	27	33	29	27		32	29	26		31	28	26	25
7	38	31	27	24	37	31	27	24	30	27	24		30	26	24		29	26	24	23
8	36	29	25	22	35	29	25	22	28	24	22		27	24	21		27	24	21	20
9	33	27	23	20	33	26	22	20	26	22	20		25	22	20		25	22	19	19
10	31	25	21	18	31	24	21	18	24	20	18		23	20	18		23	20	18	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°	48.1	5.0	2.7
10°-20°	130.9	13.5	7.3
20°-30°	162.0	16.7	9.0
30°-40°	214.7	22.1	11.9
40°-50°	231.0	23.8	12.8
50°-60°	113.8	11.7	6.3
60°-70°	33.5	3.5	1.9
70°-80°	26.7	2.8	1.5
80°-90°	9.3	1.0	0.5
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°	341.0	35.2	18.9
0°-40°	555.7	57.3	30.9
0°-60°	900.5	92.8	50.0
0°-90°	970.1	100.0	53.9
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°	970.1	100.0	53.9

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	473	473	473	473	473	
5°	503	510	507	492	462	47
15°	472	506	490	457	425	132
25°	374	402	351	299	258	172
35°	308	393	404	300	268	194
45°	295	352	350	275	200	223
55°	126	137	124	117	88	119
65°	35	35	33	32	30	36
75°	28	28	27	24	24	28
85°	9	9	9	8	8	9
90°	0	0	0	0	0	1
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°	473.2	473.2	473.2	473.2	473.2	473.2	473.2	473.2	473.2
2.5°	480.2	483.4	483.3	481.3	477.7	475.2	474.3	468.2	466.5
5°	502.8	507.1	509.6	510.4	506.8	506.2	492.4	472.1	462.3
7.5°	503.2	515.2	529.3	533.5	529.9	535.3	516.9	479.5	454.8
10°	494.1	516.0	528.0	537.4	531.6	525.1	510.4	485.9	443.3
12.5°	480.4	507.2	523.0	528.2	524.1	518.3	496.0	463.9	448.7
15°	472.2	492.7	505.9	505.5	490.5	472.3	456.7	439.0	425.1
17.5°	456.5	482.1	483.5	476.2	450.5	425.1	399.3	376.7	367.0
20°	432.5	453.6	453.3	441.1	406.9	370.8	344.7	318.8	303.1
22.5°	400.5	419.9	420.5	389.3	364.8	331.3	310.1	283.7	266.0
25°	373.7	398.7	401.6	366.0	351.4	320.3	299.2	277.2	258.1
27.5°	344.3	387.4	395.0	376.1	352.7	322.5	300.0	280.8	257.0
30°	322.4	380.8	389.5	388.3	362.5	332.7	304.8	284.8	255.3
32.5°	305.2	374.9	391.8	398.1	403.6	348.5	309.7	290.9	267.7
35°	307.6	365.4	393.3	405.8	404.2	350.2	300.3	277.1	268.3
37.5°	306.8	355.6	393.2	398.6	385.8	338.5	292.1	257.4	246.6
40°	308.8	347.2	384.3	384.8	367.0	326.9	285.1	241.4	215.8
42.5°	305.0	342.7	371.0	365.6	355.0	326.4	280.8	233.8	188.8
45°	295.2	329.1	351.5	356.1	350.2	320.6	274.8	229.5	199.5
47.5°	278.0	306.9	321.9	333.7	323.0	301.8	256.2	216.0	204.9
50°	242.5	270.7	272.1	289.3	279.5	249.1	215.9	194.2	186.4
52.5°	186.1	203.7	213.3	210.5	200.6	177.6	163.2	148.8	139.9
55°	126.2	129.4	136.6	121.2	123.8	115.5	117.4	105.4	88.5
57.5°	77.8	73.5	67.1	58.9	60.9	64.7	76.3	70.1	50.6
60°	50.3	48.3	37.1	35.8	35.5	35.5	43.5	43.1	34.5
62.5°	38.0	37.6	35.7	34.8	34.0	34.1	33.5	32.6	32.3
65°	34.6	35.2	34.7	34.3	33.4	32.6	31.5	30.4	30.1
67.5°	33.0	33.4	33.1	32.9	32.2	31.3	30.3	29.5	29.2
70°	31.1	31.5	31.7	32.5	32.5	31.7	30.5	29.6	29.0
72.5°	30.5	31.0	31.4	31.5	30.8	29.7	28.6	27.8	27.4
75°	27.5	27.7	27.7	27.5	26.7	25.5	24.4	23.8	23.6
77.5°	21.9	22.2	22.0	22.5	21.7	20.8	19.6	19.1	19.2
80°	17.8	18.1	18.1	18.0	17.4	16.8	16.0	15.6	15.4
82.5°	13.3	13.5	13.5	13.5	13.0	12.5	11.9	11.6	11.5
85°	8.9	9.1	9.2	9.3	8.8	8.4	8.1	7.8	7.6
87.5°	4.6	4.7	4.7	4.7	4.6	4.4	4.1	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)