

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: H26047

Luminaire Tested: **H2583**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-46-04  
Report Number: H26047  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: H2583  
Description: HALO STEPPED WALL MOUNT SCNCE  
FLUORESCENT VERSION  
Light Source: (1) 13W/QT4 13 WATTS 900 LUMENS  
10mm QUAD TUBE COMPACT FLUORESCENT  
G23 D-2 BASE  
Ballast/Driver: -

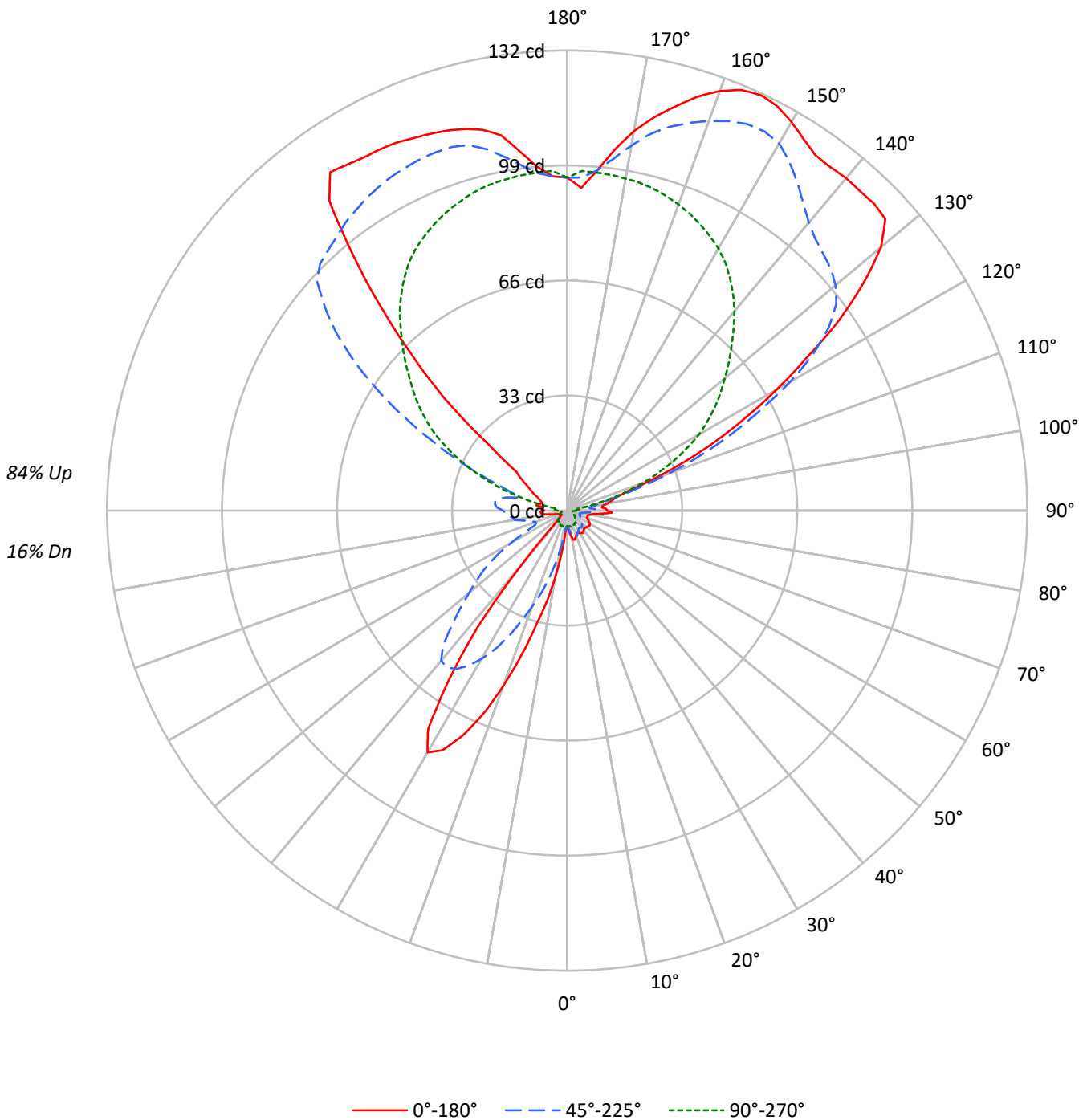
**Summary**

Lumens per Lamp: 900 (1 lamp)  
Luminaire Lumens: 422.8 lumens  
Efficiency: 47.0%  
Efficacy: 23.5 lumens/watt  
Spacing Criteria (0/90/45): 1.88 / 1.4 / 2.52  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Semi-Indirect

Input Watts (W): 18  
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			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	47	47	47	47	41	41	41	41	30	30	30	21	21	21	12	12	12	8		
1	42	40	38	37	37	35	34	32	26	25	24	18	17	17	10	10	9	6		
2	38	35	32	30	33	31	28	26	23	21	20	15	14	14	9	8	8	5		
3	35	31	27	25	30	27	24	22	20	18	17	14	12	12	8	7	7	4		
4	32	27	23	21	28	24	21	18	18	16	14	12	11	10	7	6	6	3		
5	29	24	20	18	25	21	18	16	16	14	12	11	9	8	6	5	5	3		
6	27	21	18	15	23	19	16	13	14	12	10	10	8	7	5	5	4	3		
7	25	19	16	13	21	17	14	12	13	11	9	9	7	6	5	4	4	2		
8	23	17	14	11	20	15	12	10	11	9	8	8	7	6	5	4	3	2		
9	21	16	12	10	18	14	11	9	10	8	7	7	6	5	4	3	3	2		
10	20	14	11	9	17	13	10	8	9	7	6	7	5	4	4	3	3	2		

**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°	0.6	0.2	0.1
10°-20°	4.0	0.9	0.4
20°-30°	10.6	2.5	1.2
30°-40°	15.2	3.6	1.7
40°-50°	11.0	2.6	1.2
50°-60°	8.4	2.0	0.9
60°-70°	5.5	1.3	0.6
70°-80°	5.2	1.2	0.6
80°-90°	7.6	1.8	0.8
90°-100°	9.4	2.2	1.0
100°-110°	15.8	3.7	1.8
110°-120°	39.2	9.3	4.4
120°-130°	60.2	14.2	6.7
130°-140°	70.7	16.7	7.9
140°-150°	67.1	15.9	7.5
150°-160°	51.9	12.3	5.8
160°-170°	30.9	7.3	3.4
170°-180°	9.6	2.3	1.1
0°-30°	15.2	3.6	1.7
0°-40°	30.4	7.2	3.4
0°-60°	49.7	11.8	5.5
0°-90°	68.0	16.1	7.6
90°-120°	64.4	15.2	7.2
90°-150°	262.4	62.1	29.2
90°-180°	355.0	84.0	39.4
0°-180°	422.8	100.0	47.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	5	5	5	5	5	
5°	6	5	5	5	7	1
15°	9	8	5	20	34	2
25°	7	7	4	40	71	3
35°	8	6	4	55	59	5
45°	7	6	4	47	3	6
55°	8	5	3	29	2	7
65°	7	4	2	10	3	7
75°	6	4	2	11	4	7
85°	10	6	2	17	8	7
90°	11	8	2	18	7	6
95°	10	7	4	21	7	9
105°	14	13	12	14	8	17
115°	47	52	34	35	10	47
125°	95	92	52	74	16	84
135°	124	104	67	100	63	96
145°	124	115	81	105	118	79
155°	132	122	90	109	116	60
165°	120	114	96	108	113	34
175°	98	98	97	97	99	10
180°	96	96	96	96	96	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
2.5°	5.1	4.9	4.8	4.8	4.6	4.5	4.5	4.6	4.7
5°	5.9	5.7	5.4	5.0	4.6	4.5	5.4	6.5	7.0
7.5°	6.9	6.6	6.1	5.4	4.6	4.9	7.7	10.9	12.2
10°	7.9	7.5	6.7	5.7	4.6	5.9	11.3	16.7	19.0
12.5°	8.6	8.2	7.2	6.0	4.7	7.2	15.6	23.3	26.2
15°	8.6	8.6	7.7	6.2	4.7	8.9	20.1	29.9	33.6
17.5°	8.1	8.2	8.0	6.3	4.7	10.7	24.8	37.3	43.2
20°	7.6	7.7	8.0	6.5	4.6	12.6	29.2	46.3	53.5
22.5°	7.3	7.3	7.6	6.5	4.6	14.4	34.2	55.2	63.3
25°	7.1	7.1	7.1	6.5	4.5	16.0	39.9	63.1	71.4
27.5°	7.1	7.0	6.8	6.3	4.5	17.3	44.8	69.5	77.5
30°	7.5	7.2	6.5	6.1	4.4	18.5	49.0	73.7	80.1
32.5°	7.7	7.7	6.2	5.9	4.3	19.5	52.8	75.3	74.2
35°	7.8	8.1	6.1	5.6	4.2	20.2	55.4	68.9	58.6
37.5°	7.7	8.2	6.1	5.2	4.0	20.6	56.7	55.7	42.2
40°	7.4	8.0	6.3	4.8	3.9	20.9	56.2	42.3	20.5
42.5°	7.1	7.5	6.3	4.4	3.7	20.8	52.7	25.6	5.6
45°	7.1	7.0	6.1	4.1	3.5	20.5	47.0	13.8	3.0
47.5°	7.2	6.8	5.7	3.8	3.2	19.7	41.6	12.4	2.8
50°	7.4	6.6	5.3	3.6	3.0	18.4	36.7	11.9	2.3
52.5°	7.6	6.5	4.9	3.4	2.8	16.7	32.5	11.0	2.0
55°	7.7	6.5	4.6	3.2	2.6	14.4	28.6	10.5	2.0
57.5°	7.7	6.5	4.5	3.1	2.5	11.9	23.9	10.2	2.1
60°	7.5	6.4	4.3	3.0	2.3	9.0	18.7	9.5	2.2
62.5°	7.2	6.2	4.2	2.9	2.2	6.7	13.8	8.6	2.5
65°	6.7	5.9	4.2	2.8	2.1	4.4	10.5	8.0	2.6
67.5°	6.4	5.6	4.0	2.7	2.0	2.7	9.6	7.6	2.7
70°	6.1	5.4	3.9	2.7	1.9	1.9	9.6	7.5	3.0
72.5°	6.0	5.2	3.7	2.6	1.8	1.7	10.4	7.3	3.5
75°	6.0	5.2	3.7	2.5	1.7	1.7	11.2	7.0	4.2
77.5°	6.2	5.4	3.7	2.5	1.6	1.7	13.2	6.8	5.2
80°	6.7	5.9	4.1	2.5	1.6	1.7	15.3	6.7	6.5
82.5°	7.5	6.6	4.7	2.8	1.6	1.8	15.8	7.7	7.2
85°	10.0	8.8	5.9	3.3	1.7	1.6	16.8	8.6	7.6
87.5°	12.9	11.5	7.8	4.1	2.0	1.6	17.7	9.0	7.6
90°	11.4	10.3	8.2	5.1	2.5	2.8	18.4	9.2	6.6
92.5°	11.2	10.6	8.4	5.5	3.6	5.4	20.1	10.1	7.0
95°	10.0	9.1	6.8	4.7	3.5	4.9	20.8	10.5	7.2
97.5°	10.2	9.2	6.4	4.0	2.9	3.9	20.8	10.7	6.9
100°	11.6	10.8	7.7	4.5	3.1	3.6	19.6	11.5	9.0
102.5°	13.1	12.1	9.8	7.2	6.8	8.9	17.5	11.6	8.7
105°	14.4	13.8	13.3	13.3	12.0	19.8	14.2	11.1	7.6
107.5°	17.8	18.6	21.0	21.9	17.8	31.4	15.9	10.7	7.6
110°	26.1	27.8	30.8	31.1	23.0	43.1	20.2	11.1	8.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	36.2	37.9	41.5	40.2	28.3	51.1	27.1	12.1	8.8
115°	46.8	49.8	52.0	48.3	33.7	56.3	35.3	13.7	9.7
117.5°	57.7	61.3	62.7	55.9	38.7	59.8	44.3	16.1	11.2
120°	69.5	73.3	73.8	62.5	43.6	62.9	54.5	18.5	12.3
122.5°	81.2	86.3	83.7	68.0	47.8	66.5	64.7	21.4	13.9
125°	95.3	99.5	91.6	72.4	51.7	69.9	74.4	24.4	16.3
127.5°	107.2	109.8	97.3	76.2	55.4	73.4	83.3	32.7	18.5
130°	117.5	117.0	100.5	79.5	59.0	77.0	90.7	49.6	29.1
132.5°	123.8	120.3	102.6	82.8	62.9	80.7	97.3	64.5	47.9
135°	124.5	121.3	104.0	86.5	66.7	84.2	100.2	78.4	62.7
137.5°	124.3	121.6	105.5	90.4	70.6	87.5	101.4	92.6	78.7
140°	124.5	121.9	107.8	94.4	74.7	90.7	102.7	107.5	95.5
142.5°	124.1	122.0	111.2	98.4	78.2	93.4	104.3	114.7	112.0
145°	124.3	123.5	115.0	101.6	81.4	96.1	105.4	114.7	118.5
147.5°	126.3	126.3	118.6	104.4	84.4	98.3	106.6	114.8	117.6
150°	128.7	129.3	121.6	106.4	86.8	100.1	107.5	114.7	116.9
152.5°	130.7	131.2	122.6	107.4	88.7	101.5	108.3	114.8	116.7
155°	131.5	131.7	122.3	107.7	90.5	102.2	108.8	114.6	116.4
157.5°	130.6	130.7	120.9	107.3	92.1	102.2	109.3	114.4	115.6
160°	128.1	128.1	118.9	106.3	93.4	101.7	109.5	113.9	115.0
162.5°	124.5	124.7	116.6	104.8	94.6	101.2	109.4	113.3	114.3
165°	120.0	120.6	114.0	103.3	95.6	100.3	108.5	112.4	113.3
167.5°	115.6	116.5	110.7	101.5	96.3	99.4	106.1	110.9	111.9
170°	110.5	111.6	106.3	100.0	96.7	98.6	103.0	107.6	109.3
172.5°	104.4	105.4	101.8	98.3	97.1	98.1	99.8	102.8	103.9
175°	97.7	99.8	97.9	97.4	97.3	97.6	97.2	98.5	99.0
177.5°	92.6	95.4	95.6	96.7	97.5	97.3	95.9	95.9	96.0
180°	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5

(END OF REPORT)