

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: H26044

Luminaire Tested: **H2589**

Issue Date: 3/3/2020



Test Information

Test Method: LM-46-04
Report Number: H26044
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H2589
Description: HALO DORIC WALL MOUNT SCONCE FLUORESCENT VERSION
Light Source: (1) 13W/QT4 13 WATTS 900 LUMENS
Ballast/Driver: -

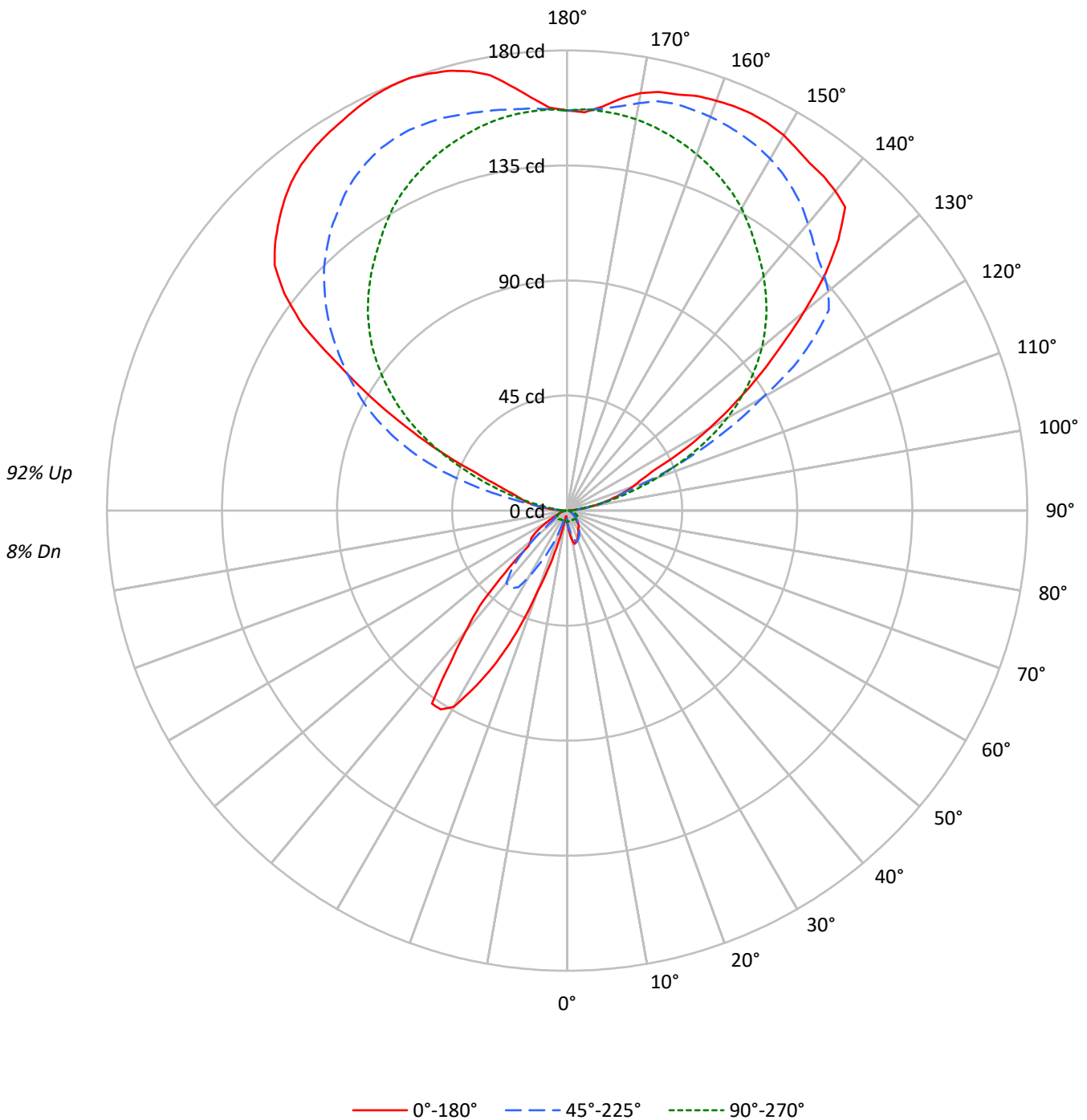
Summary

Lumens per Lamp: 900 (1 lamp)
Luminaire Lumens: 585.4 lumens
Efficiency: 65.0%
Efficacy: 32.5 lumens/watt
Spacing Criteria (0/90/45): 2.68 / 1.49 / 1.97
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: 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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	63	63	63	63	55	55	55	55	39	39	39	25	25	25	12	12	12	5
1	58	55	53	50	50	48	46	44	34	33	32	22	21	21	10	10	10	5
2	52	48	44	41	45	42	39	36	30	28	26	19	18	17	9	9	8	4
3	48	42	38	34	41	37	33	30	26	24	22	17	16	14	8	7	7	3
4	44	37	32	29	38	32	28	25	23	21	19	15	13	12	7	7	6	3
5	40	33	28	24	34	29	25	22	21	18	16	13	12	11	6	6	5	2
6	37	29	24	21	32	26	21	18	18	16	14	12	10	9	6	5	4	2
7	34	26	21	18	29	23	19	16	17	14	12	11	9	8	5	4	4	2
8	31	24	19	16	27	21	17	14	15	12	10	10	8	7	5	4	3	2
9	29	21	17	14	25	19	15	12	14	11	9	9	7	6	4	4	3	1
10	27	19	15	12	23	17	13	11	12	10	8	8	6	5	4	3	3	1

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°	0.5	0.1	0.1
10°-20°	2.4	0.4	0.3
20°-30°	8.3	1.4	0.9
30°-40°	14.5	2.5	1.6
40°-50°	10.6	1.8	1.2
50°-60°	5.7	1.0	0.6
60°-70°	3.7	0.6	0.4
70°-80°	2.1	0.4	0.2
80°-90°	1.2	0.2	0.1
90°-100°	5.6	1.0	0.6
100°-110°	26.2	4.5	2.9
110°-120°	63.8	10.9	7.1
120°-130°	98.0	16.7	10.9
130°-140°	107.8	18.4	12.0
140°-150°	97.1	16.6	10.8
150°-160°	75.7	12.9	8.4
160°-170°	46.8	8.0	5.2
170°-180°	15.3	2.6	1.7
0°-30°	11.2	1.9	1.2
0°-40°	25.7	4.4	2.9
0°-60°	42.0	7.2	4.7
0°-90°	49.1	8.4	5.5
90°-120°	95.6	16.3	10.6
90°-150°	398.5	68.1	44.3
90°-180°	536.0	91.6	59.6
0°-180°	585.4	100.0	65.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4	4	4	4	4	
5°	8	7	4	2	3	1
15°	13	12	4	2	11	4
25°	10	11	4	18	66	5
35°	8	8	4	37	92	5
45°	5	6	5	28	34	4
55°	4	3	5	8	15	3
65°	2	2	4	5	6	2
75°	1	1	2	2	2	1
85°	1	1	1	1	1	1
90°	1	1	0	1	1	1
95°	2	3	3	5	6	4
105°	18	19	22	38	19	20
115°	38	60	55	81	55	41
125°	91	118	87	110	126	82
135°	150	139	110	134	160	114
145°	166	154	128	151	173	104
155°	171	162	143	160	179	79
165°	168	165	152	160	178	48
175°	159	158	157	158	162	15
180°	156	156	156	156	156	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
2.5°	6.0	5.7	5.3	4.8	4.4	3.7	3.3	3.0	3.0
5°	7.9	7.6	6.7	5.6	4.3	3.0	2.4	2.5	2.6
7.5°	10.0	9.5	8.1	6.4	4.3	2.5	2.2	2.3	2.4
10°	12.2	11.5	9.6	7.1	4.3	2.4	2.2	2.1	2.2
12.5°	13.4	13.3	11.0	7.8	4.3	2.3	2.2	2.1	2.4
15°	13.0	13.1	12.4	8.5	4.3	2.3	2.2	6.4	10.8
17.5°	12.6	12.7	12.6	9.1	4.3	2.3	2.7	15.1	21.7
20°	11.8	12.0	12.2	9.6	4.2	2.3	7.1	25.0	33.5
22.5°	11.1	11.2	11.7	10.1	4.2	2.2	12.4	35.6	51.1
25°	10.2	10.4	11.0	10.5	4.2	2.3	18.4	50.5	65.7
27.5°	9.5	9.6	10.4	10.5	4.2	2.5	23.8	59.6	77.5
30°	8.8	8.9	9.6	10.1	4.2	2.8	30.1	67.5	88.6
32.5°	8.2	8.2	8.9	9.7	4.2	3.0	35.5	73.6	92.2
35°	7.8	7.5	8.1	9.2	4.2	4.3	37.0	73.6	92.2
37.5°	7.3	7.0	7.4	8.7	4.3	4.9	37.6	70.3	74.9
40°	6.6	6.4	6.8	8.1	4.5	5.9	36.9	55.5	61.8
42.5°	5.6	5.6	6.2	7.6	4.7	6.5	33.0	44.9	50.6
45°	5.0	4.9	5.6	7.0	4.8	6.6	28.1	35.4	34.2
47.5°	4.7	4.4	4.9	6.4	4.8	6.1	21.3	23.8	20.4
50°	4.3	4.1	4.3	5.8	4.9	5.1	15.4	14.7	18.5
52.5°	3.9	3.6	3.7	5.3	5.0	4.8	10.7	13.3	17.7
55°	3.5	3.3	3.3	4.7	4.9	5.3	7.5	12.8	15.1
57.5°	3.0	2.9	3.0	4.2	4.8	5.4	5.7	11.1	12.2
60°	2.6	2.5	2.6	3.7	4.6	5.3	5.3	9.2	9.4
62.5°	2.2	2.1	2.3	3.2	4.4	5.2	5.2	7.3	7.1
65°	1.8	1.8	2.0	2.8	4.1	4.9	4.8	5.6	5.5
67.5°	1.7	1.5	1.7	2.4	3.8	4.4	4.4	4.4	4.1
70°	1.6	1.5	1.4	2.1	3.3	3.9	3.7	3.3	3.3
72.5°	1.5	1.4	1.3	1.8	2.8	3.3	3.1	2.8	2.9
75°	1.4	1.3	1.2	1.5	2.3	2.7	2.5	2.5	2.5
77.5°	1.3	1.2	1.1	1.4	1.9	2.1	2.1	2.1	2.1
80°	1.2	1.2	1.0	1.2	1.5	1.7	1.7	1.7	1.8
82.5°	1.2	1.1	1.0	1.0	1.3	1.4	1.4	1.4	1.4
85°	1.3	1.1	0.9	0.9	0.9	1.1	1.1	1.1	1.2
87.5°	1.4	1.2	0.9	0.8	0.7	0.8	0.8	0.9	0.9
90°	1.4	1.3	1.0	0.7	0.5	0.6	0.6	0.7	0.7
92.5°	0.8	0.7	0.6	1.0	1.4	3.9	2.6	3.1	2.7
95°	2.4	2.7	3.3	3.4	3.2	7.5	5.1	6.7	5.9
97.5°	6.3	6.4	7.0	6.3	4.6	11.0	8.0	10.9	10.0
100°	10.3	10.4	10.9	9.8	9.1	13.8	14.9	14.4	13.9
102.5°	14.2	14.5	15.2	16.8	14.6	18.4	25.1	16.9	16.9
105°	18.5	18.9	19.3	27.4	21.6	27.5	38.1	20.2	19.2
107.5°	22.8	23.3	23.6	39.0	29.1	40.1	50.9	26.0	22.9
110°	27.1	27.4	33.9	54.0	37.3	55.6	61.8	33.8	28.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	31.3	31.9	46.5	66.4	46.2	71.5	71.6	48.6	38.8
115°	37.6	43.4	60.0	75.5	55.3	88.7	80.6	64.3	55.3
117.5°	51.5	57.1	74.3	83.7	64.1	104.3	88.8	80.8	71.0
120°	64.0	69.3	88.2	90.0	72.3	116.5	95.8	98.7	88.6
122.5°	77.2	84.1	105.2	95.7	79.7	123.6	103.0	117.0	105.6
125°	91.2	98.7	118.0	101.7	86.7	129.3	109.8	131.4	126.1
127.5°	105.2	112.7	129.0	107.5	93.3	135.5	116.7	141.8	139.4
130°	120.9	129.6	133.4	113.4	99.5	140.7	123.0	147.7	149.4
132.5°	136.9	142.6	136.3	118.8	105.0	145.4	128.7	152.9	154.9
135°	150.1	153.6	139.0	123.9	110.3	149.3	134.5	157.7	159.6
137.5°	161.0	157.0	142.5	128.4	115.0	153.1	139.1	161.8	164.0
140°	163.2	158.9	146.5	132.8	119.6	157.1	143.7	165.1	167.8
142.5°	164.8	160.1	150.5	136.9	123.8	160.5	147.4	167.6	170.7
145°	165.7	162.1	153.7	141.1	128.0	163.8	151.4	170.0	172.9
147.5°	167.5	164.9	156.6	145.2	132.3	166.7	154.6	172.0	174.6
150°	169.5	166.8	158.9	148.6	136.5	169.3	157.1	174.0	176.0
152.5°	170.6	168.2	160.7	151.3	140.0	171.2	159.2	175.6	177.7
155°	171.2	169.0	162.0	153.6	143.0	172.2	160.4	177.2	179.0
157.5°	171.1	169.1	163.1	155.1	145.8	173.0	161.2	178.0	179.8
160°	170.6	169.2	163.9	156.1	148.3	173.4	161.2	178.1	180.1
162.5°	170.0	168.3	164.3	156.6	150.5	172.9	161.1	177.6	179.2
165°	168.4	167.6	164.7	156.9	152.4	171.8	160.3	176.5	178.1
167.5°	167.7	166.7	164.0	157.1	154.1	169.3	159.7	174.5	176.0
170°	165.8	165.0	161.8	157.1	155.4	166.1	159.1	170.8	172.9
172.5°	162.6	161.9	159.5	156.9	156.3	162.6	158.3	166.0	167.5
175°	158.6	158.4	157.7	156.9	156.8	159.6	157.9	161.1	162.2
177.5°	155.9	156.3	156.9	157.1	157.1	157.6	157.1	157.5	157.7
180°	156.5	156.5	156.5	156.5	156.5	156.5	156.5	156.5	156.5

(END OF REPORT)