

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: H22008

Luminaire Tested: **H47T-498**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-46-04  
Report Number: H22008  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: H47T-498  
Description: HALO 6" RECESSED OPEN DOWNLIGHT  
SLOPE CEILING UNIT - BAFFLE  
HIGH SOCKET SETTING  
Light Source: 150R40SP 150W 1900 LUMENS  
R40 SPOT  
GAIN 308  
Ballast/Driver: -

**Summary**

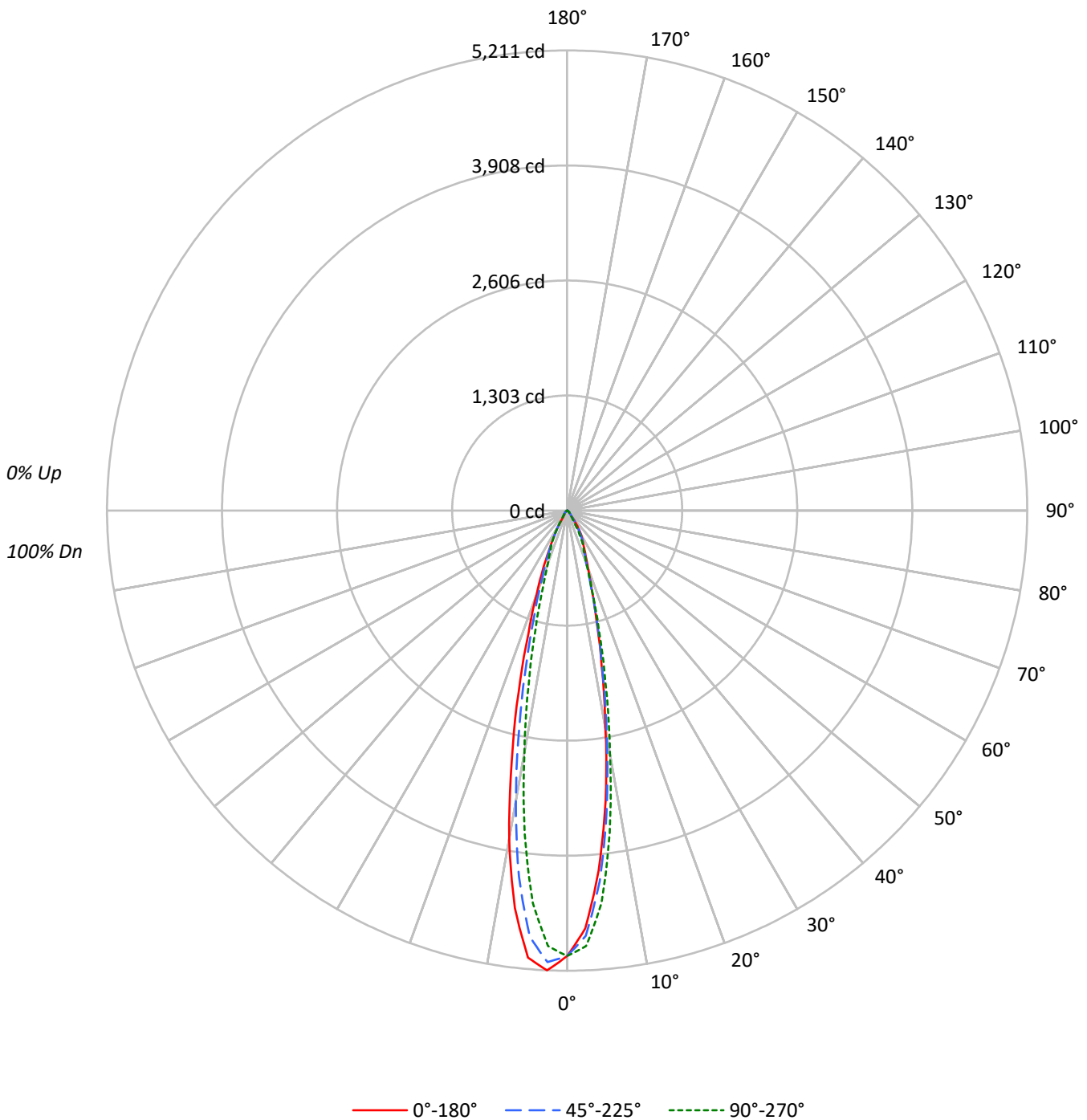
Lumens per Lamp: 1900 (1 lamp)  
Luminaire Lumens: 1134.2 lumens  
Efficiency: 59.7%  
Efficacy: 7.6 lumens/watt  
Spacing Criteria (0/90/45): 0.41 / 0.37 / 0.39  
Luminous Opening: (L: -0.46 ' x W: 0 ' x H: 0 '  
CIE Type: Direct

Input Watts (W): 150  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	71	71	71	71	69	69	69	69	66	66	66	66	63	63	63	63	61	61	61	61	60	60	60	60
1	68	67	66	65	67	66	65	64	63	63	62	62	61	61	60	60	59	59	58	58	57	57	57	57
2	66	64	62	60	65	63	61	60	61	59	58	58	59	58	57	57	58	57	56	56	55	55	55	55
3	64	61	58	57	63	60	58	56	58	57	55	55	57	56	54	54	56	55	54	54	53	53	53	53
4	62	58	56	54	61	57	55	53	56	54	53	53	55	53	52	52	54	53	52	52	51	51	51	51
5	59	56	53	51	59	55	53	51	54	52	50	50	53	51	50	50	52	51	50	50	49	49	49	49
6	58	54	51	49	57	53	51	49	52	50	49	49	52	50	48	48	51	49	48	48	47	47	47	47
7	56	52	49	47	55	51	49	47	51	48	47	47	50	48	47	47	49	48	46	46	46	46	46	46
8	54	50	47	45	54	50	47	45	49	47	45	45	48	46	45	45	48	46	45	45	44	44	44	44
9	53	48	46	44	52	48	46	44	48	45	44	44	47	45	44	44	47	45	43	43	43	43	43	43
10	51	47	44	43	51	47	44	42	46	44	42	42	46	44	42	42	45	44	42	42	42	42	42	42

**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°	380.5	33.5	20.0
10°-20°	436.7	38.5	23.0
20°-30°	201.5	17.8	10.6
30°-40°	68.8	6.1	3.6
40°-50°	30.5	2.7	1.6
50°-60°	12.2	1.1	0.6
60°-70°	2.4	0.2	0.1
70°-80°	0.8	0.1	0.0
80°-90°	0.5	0.0	0.0
90°-100°	0.3	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°	1018.7	89.8	53.6
0°-40°	1087.5	95.9	57.2
0°-60°	1130.3	99.7	59.5
0°-90°	1133.8	100.0	59.7
90°-120°	0.3	0.0	0.0
90°-150°	0.3	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	1134.2	100.0	59.7

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	5045	5045	5045	5045	5045	
5°	4092	4218	4463	4842	5081	340
15°	1273	1286	1382	1769	2123	370
25°	447	421	416	436	451	211
35°	162	128	78	66	60	103
45°	38	41	40	40	37	30
55°	18	20	17	2	1	16
65°	6	4	1	0	0	6
75°	2	1	1	0	0	2
85°	1	1	0	0	0	1
90°	1	1	0	0	0	1
95°	1	1	0	0	0	1
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°	5045	5045	5045	5045	5045	5045	5045	5045	5045
2.5°	4735	4749	4821	4868	4935	5069	5118	5176	5211
5°	4092	4137	4218	4317	4463	4675	4842	5016	5081
7.5°	3326	3340	3427	3502	3686	3922	4183	4425	4539
10°	2497	2480	2577	2690	2797	3052	3346	3626	3784
12.5°	1814	1795	1835	1898	2013	2219	2490	2800	2896
15°	1273	1274	1286	1307	1382	1525	1769	2034	2123
17.5°	913	906	885	873	904	1026	1224	1421	1458
20°	686	672	638	615	632	712	851	982	1011
22.5°	546	533	502	483	494	543	615	692	708
25°	447	447	421	413	416	418	436	452	451
27.5°	371	379	360	334	301	280	284	294	293
30°	317	320	290	246	197	179	185	179	171
32.5°	238	242	204	149	118	103	97	88	80
35°	162	160	128	100	78	67	66	63	60
37.5°	92	98	83	67	57	57	57	55	52
40°	56	59	57	53	51	51	51	49	47
42.5°	45	46	48	46	45	45	46	44	42
45°	38	39	41	41	40	40	40	38	37
47.5°	32	33	35	35	34	34	34	33	32
50°	27	28	30	30	29	28	27	24	21
52.5°	22	23	25	25	23	21	13	4	3
55°	18	19	20	20	17	10	2	1	1
57.5°	14	15	16	15	9	2	1	1	1
60°	11	11	12	10	3	1	1	0	0
62.5°	8	8	8	4	1	1	0	0	0
65°	6	5	4	2	1	1	0	0	0
67.5°	3	3	2	1	1	1	0	0	0
70°	2	2	2	1	1	0	0	0	0
72.5°	2	2	2	1	1	0	0	0	0
75°	2	2	1	1	1	0	0	0	0
77.5°	2	1	1	1	1	0	0	0	0
80°	1	1	1	1	0	0	0	0	0
82.5°	1	1	1	1	0	0	0	0	0
85°	1	1	1	1	0	0	0	0	0
87.5°	1	1	1	1	0	0	0	0	0
90°	1	1	1	0	0	0	0	0	0
92.5°	1	1	1	0	0	0	0	0	0
95°	1	1	1	0	0	0	0	0	0
97.5°	1	1	0	0	0	0	0	0	0
100°	1	1	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)