

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: H22005

Luminaire Tested: **H47T-498**

Issue Date: 3/3/2020

Test Information

Test Method: LM-46-04
Report Number: H22005
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: H47T-498
Description: HALO 6" RECESSED DOWNLIGHT
SLOPE CEILING UNIT - BAFFLE
LOW SOCKET SETTING
Light Source: 150R40 150W 1900 LUMENS
R40 SPOT
GAIN 308
Ballast/Driver: -

Summary

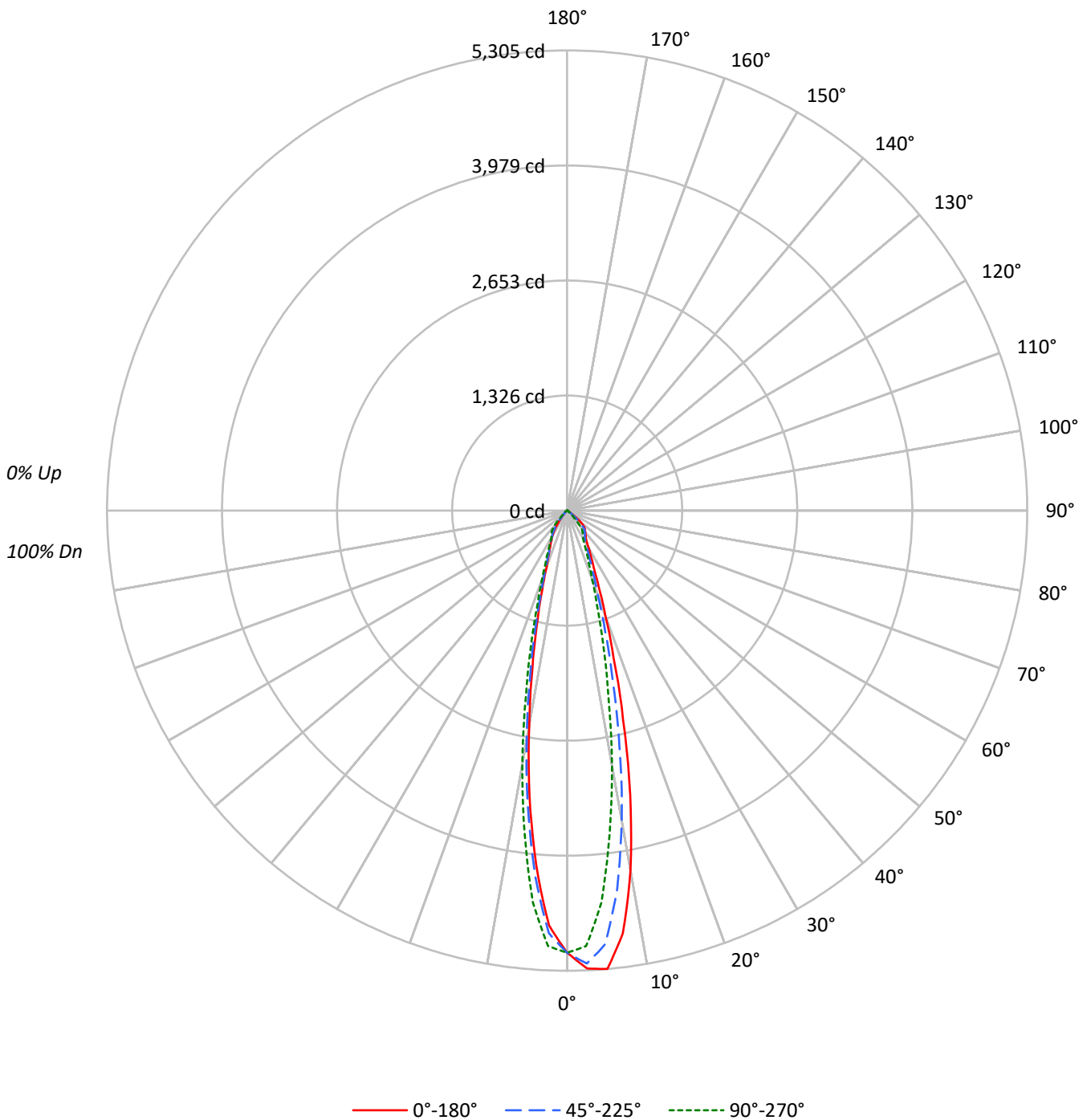
Lumens per Lamp: 1900 (1 lamp)
Luminaire Lumens: 1492.4 lumens
Efficiency: 78.5%
Efficacy: 9.9 lumens/watt
Spacing Criteria (0/90/45): 0.43 / 0.39 / 0.42
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Direct

Input Watts (W): 150
Input Voltage (V): NR
Input Current (A_{in}): 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	94	94	94	94	91	91	91	91	87	87	87	84	84	84	80	80	80	79		
1	90	88	86	84	88	86	84	83	83	81	80	80	79	78	77	76	76	74		
2	86	82	79	77	84	81	78	76	78	76	74	76	74	73	74	72	71	70		
3	82	77	74	71	80	76	73	71	74	72	69	72	70	68	71	69	67	66		
4	78	73	69	66	77	72	69	66	71	68	65	69	67	64	68	66	64	63		
5	75	69	65	62	74	69	65	62	67	64	62	66	63	61	65	63	61	60		
6	72	66	62	59	71	66	62	59	64	61	58	63	60	58	62	60	58	57		
7	69	63	59	56	69	63	59	56	62	58	56	61	58	55	60	57	55	54		
8	67	60	56	54	66	60	56	53	59	56	53	58	55	53	58	55	53	52		
9	65	58	54	51	64	58	54	51	57	53	51	56	53	51	56	53	51	50		
10	62	56	52	49	62	55	52	49	55	51	49	54	51	49	54	51	49	48		

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°	392.3	26.3	20.6
10°-20°	491.8	33.0	25.9
20°-30°	263.7	17.7	13.9
30°-40°	185.8	12.4	9.8
40°-50°	105.7	7.1	5.6
50°-60°	34.2	2.3	1.8
60°-70°	12.4	0.8	0.7
70°-80°	4.3	0.3	0.2
80°-90°	1.7	0.1	0.1
90°-100°	0.5	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°	1147.8	76.9	60.4
0°-40°	1333.6	89.4	70.2
0°-60°	1473.4	98.7	77.5
0°-90°	1491.9	100.0	78.5
90°-120°	0.6	0.0	0.0
90°-150°	0.6	0.0	0.0
90°-180°	1.0	0.1	0.1
0°-180°	1492.4	100.0	78.5

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5097	5097	5097	5097	5097	
5°	5305	5020	4533	4227	4100	469
15°	2495	2029	1604	1421	1316	692
25°	726	616	515	470	462	355
35°	374	356	315	249	206	241
45°	287	239	90	46	41	213
55°	60	40	28	24	22	71
65°	15	14	13	10	8	15
75°	8	7	4	1	0	8
85°	4	3	1	0	0	4
90°	3	2	1	0	0	2
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°	5097	5097	5097	5097	5097	5097	5097	5097	5097
2.5°	5283	5290	5227	5156	5025	4910	4875	4813	4786
5°	5305	5239	5020	4773	4533	4341	4227	4123	4100
7.5°	4918	4731	4406	4084	3754	3576	3455	3326	3320
10°	4207	4028	3626	3204	2971	2790	2685	2574	2519
12.5°	3358	3191	2790	2422	2195	2106	1975	1885	1843
15°	2495	2343	2029	1776	1604	1491	1421	1354	1316
17.5°	1780	1676	1458	1256	1137	1067	1007	961	955
20°	1290	1186	1029	918	840	787	740	702	689
22.5°	950	891	781	697	649	600	574	555	553
25°	726	682	616	556	515	485	470	463	462
27.5°	591	560	506	460	429	414	413	392	391
30°	493	466	423	381	365	355	352	341	342
32.5°	411	400	377	351	334	327	312	287	279
35°	374	366	356	332	315	290	249	209	206
37.5°	349	342	335	316	283	231	164	133	129
40°	326	318	316	290	229	146	99	79	74
42.5°	306	298	294	230	159	87	62	52	49
45°	287	277	239	174	90	58	46	43	41
47.5°	252	234	168	112	61	43	38	36	36
50°	195	162	114	67	42	36	34	32	30
52.5°	124	98	67	43	34	30	28	26	26
55°	60	51	40	32	28	26	24	22	22
57.5°	32	31	28	25	23	22	20	19	19
60°	23	23	22	21	19	18	17	16	16
62.5°	18	18	18	17	16	15	14	12	12
65°	15	15	14	14	13	12	10	8	8
67.5°	12	12	12	11	10	8	7	5	5
70°	10	10	10	9	8	6	4	2	2
72.5°	8	8	8	7	6	4	2	1	0
75°	8	7	7	6	4	2	1	0	0
77.5°	7	6	6	4	2	1	1	0	0
80°	6	6	5	3	2	1	0	0	0
82.5°	5	5	4	2	1	1	0	0	0
85°	4	4	3	2	1	0	0	0	0
87.5°	4	3	2	1	1	0	0	0	0
90°	3	3	2	1	1	0	0	0	0
92.5°	2	2	1	1	0	0	0	0	0
95°	1	1	1	1	0	0	0	0	0
97.5°	1	1	1	0	0	0	0	0	0
100°	0	0	1	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)