

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: H23438

Luminaire Tested: **H803E-804**

Issue Date: 3/3/2020



**Test Information**

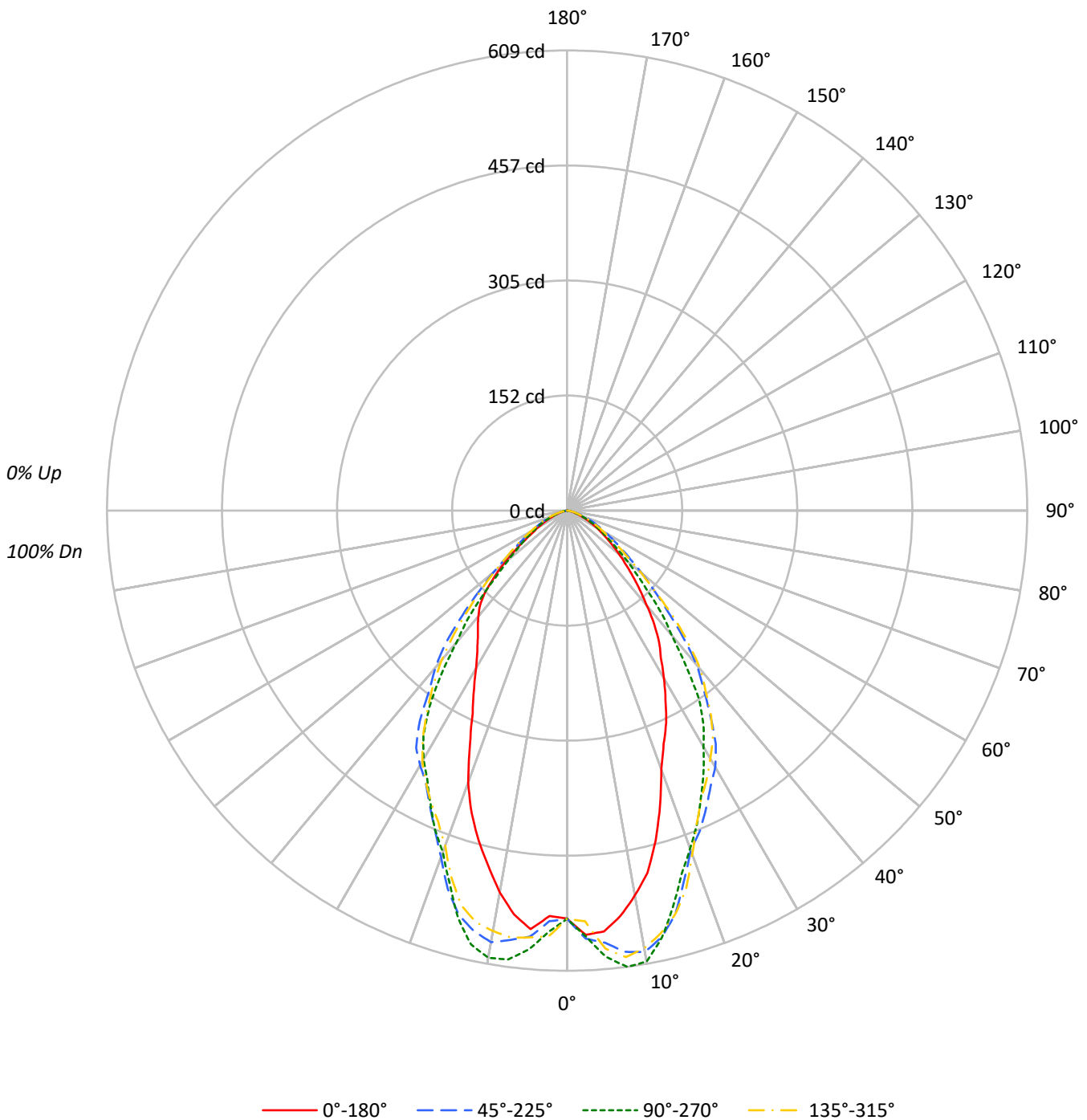
Test Method: LM-46-04  
Report Number: H23438  
Test Lab: Peachtree City  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: H803E-804  
Description: HALO 8 IN FLUORESCENT RECESSED DOWNLIGHT  
WITH SPECULAR REFLECTOR AND DIFFUSED ALUMINUM TRIM WITH LOUVERS  
Light Source: TWO 4 PIN DTT COMPACT FLUORESCENT LAMPS  
TWO CFQ26WG24D/827 26WATTS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 1800 (2 lamps)  
Luminaire Lumens: 812.2 lumens  
Efficiency: 22.6%  
Efficacy: 16.9 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 1.06 / 1.12  
Luminous Opening: Circular (Dia: 0.56' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 48  
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	50	30	10	0	
RCR																						
0	27	27	27	27	26	26	26	26	25	25	25	24	24	24	23	23	23	23	23	23	23	
1	25	24	24	23	25	24	23	23	23	23	22	22	22	21	21	21	21	21	21	21	20	
2	24	22	21	20	23	22	21	20	21	20	19	20	20	19	20	19	19	20	19	19	18	
3	22	20	19	18	21	20	19	17	19	18	17	19	18	17	18	17	17	18	17	17	16	
4	21	18	17	16	20	18	17	16	18	16	15	17	16	15	17	16	15	17	16	15	15	
5	19	17	15	14	19	17	15	14	16	15	14	16	15	14	15	14	14	15	14	14	13	
6	18	15	14	13	18	15	14	13	15	14	13	15	13	12	14	13	12	14	13	12	12	
7	17	14	13	12	17	14	13	11	14	12	11	14	12	11	13	12	11	13	12	11	11	
8	16	13	12	11	16	13	12	11	13	11	10	13	11	10	12	11	10	12	11	10	10	
9	15	12	11	10	15	12	11	10	12	11	10	12	11	10	12	10	10	12	10	10	9	
10	14	12	10	9	14	11	10	9	11	10	9	11	10	9	11	10	9	11	10	9	9	

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	23390	23390	23390	23390
5°	24305	25784	24175	25349
10°	22739	26654	22563	26434
15°	20269	24305	20269	25022
20°	16778	21941	17654	22171
25°	14816	20025	14147	20455
30°	12804	18056	12054	19006
35°	11210	16075	10893	16815
40°	9273	12157	10347	12835
45°	7535	9250	9433	9556
50°	6065	7008	7412	6806
55°	4833	5286	5135	5286
60°	3898	4158	3812	4158
65°	2972	3280	2870	3280
70°	2153	2280	2026	2280
75°	1506	1674	1506	1674
80°	748	998	748	998
85°	0	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	54.5	6.7	1.5
10°-20°	146.0	18.0	4.1
20°-30°	183.8	22.6	5.1
30°-40°	182.6	22.5	5.1
40°-50°	129.1	15.9	3.6
50°-60°	69.1	8.5	1.9
60°-70°	33.8	4.2	0.9
70°-80°	12.0	1.5	0.3
80°-90°	1.1	0.1	0.0
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°	384.4	47.3	10.7
0°-40°	567.0	69.8	15.7
0°-60°	765.2	94.2	21.3
0°-90°	812.2	100.0	22.6
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°	812.2	100.0	22.6

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	540	540	540	540	540	
5°	559	593	556	583	559	52
15°	452	542	452	558	452	125
25°	310	419	296	428	310	142
35°	212	304	206	318	212	131
45°	123	151	154	156	123	95
55°	64	70	68	70	64	58
65°	29	32	28	32	29	29
75°	9	10	9	10	9	10
85°	0	0	0	0	0	1
90°	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°	202.5°	225°
0°	540	540	540	540	540	540	540	540	540	540	540
2.5°	562	564	567	569	564	552	544	540	537	539	544
5°	559	563	574	583	593	591	582	563	556	557	566
7.5°	541	559	589	603	609	604	596	554	539	549	573
10°	517	551	593	609	606	603	588	538	513	538	580
12.5°	491	534	578	588	579	587	573	519	482	522	570
15°	452	507	553	549	542	556	553	495	452	504	554
17.5°	409	473	514	507	504	522	524	465	420	482	525
20°	364	438	478	475	476	486	484	431	383	449	488
22.5°	334	409	459	450	449	455	448	393	336	417	457
25°	310	384	435	426	419	424	420	357	296	385	430
27.5°	282	362	411	408	391	404	400	332	267	361	405
30°	256	334	392	385	361	376	379	310	241	342	389
32.5°	231	305	366	359	336	347	359	287	221	318	372
35°	212	275	330	321	304	317	332	269	206	294	340
37.5°	189	246	296	270	257	275	301	249	194	265	299
40°	164	216	267	226	215	232	274	225	183	241	271
42.5°	142	186	227	193	186	204	237	197	171	213	238
45°	123	159	188	161	151	170	199	169	154	183	196
47.5°	105	132	155	133	125	141	155	139	131	145	158
50°	90	110	129	113	104	119	127	111	110	116	127
52.5°	76	93	105	95	84	96	100	88	88	91	99
55°	64	76	87	77	70	77	82	69	68	72	81
57.5°	53	62	72	63	58	63	67	56	53	58	66
60°	45	50	59	51	48	51	54	47	44	47	53
62.5°	36	43	49	43	40	43	46	37	35	39	45
65°	29	35	41	34	32	35	37	30	28	32	37
67.5°	22	27	33	27	24	27	30	24	21	25	29
70°	17	21	25	20	18	21	23	18	16	19	22
72.5°	12	15	19	15	13	15	17	13	12	14	17
75°	9	11	14	11	10	11	13	10	9	10	12
77.5°	6	8	9	7	7	8	9	7	6	7	9
80°	3	4	5	4	4	5	5	4	3	4	5
82.5°	1	2	2	2	2	2	3	2	2	2	2
85°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	540	540	540	540	540	540
2.5°	553	558	565	564	567	562
5°	580	583	584	567	566	559
7.5°	592	599	594	570	554	541
10°	598	601	595	565	538	517
12.5°	587	588	591	558	512	491
15°	559	558	566	541	480	452
17.5°	528	517	524	509	442	409
20°	492	481	486	472	409	364
22.5°	461	457	460	446	379	334
25°	436	428	438	426	354	310
27.5°	410	401	418	405	329	282
30°	384	380	400	383	300	256
32.5°	350	354	372	355	275	231
35°	317	318	335	322	247	212
37.5°	272	274	282	291	220	189
40°	225	227	241	258	193	164
42.5°	195	195	207	221	168	142
45°	162	156	171	184	145	123
47.5°	132	123	139	152	122	105
50°	114	101	118	124	104	90
52.5°	92	83	98	101	87	76
55°	74	70	79	84	72	64
57.5°	60	58	65	69	59	53
60°	48	48	53	57	48	45
62.5°	40	40	44	47	40	36
65°	32	32	36	39	32	29
67.5°	25	24	28	32	25	22
70°	19	18	21	24	19	17
72.5°	14	13	16	18	14	12
75°	10	10	12	13	10	9
77.5°	7	7	8	9	7	6
80°	4	4	5	5	4	3
82.5°	2	2	2	3	2	1
85°	0	0	0	0	0	0
87.5°	0	0	0	0	0	0
90°	0	0	0	0	0	0

(END OF REPORT)