

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P295445

Luminaire Tested: **HLB3S05950EMW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P295445  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1901-077-10)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: HLB3S05950EMW  
Description: 3 IN SQUARE HALO BLADE - 5000K  
Light Source: -  
Ballast/Driver: -

**Summary**

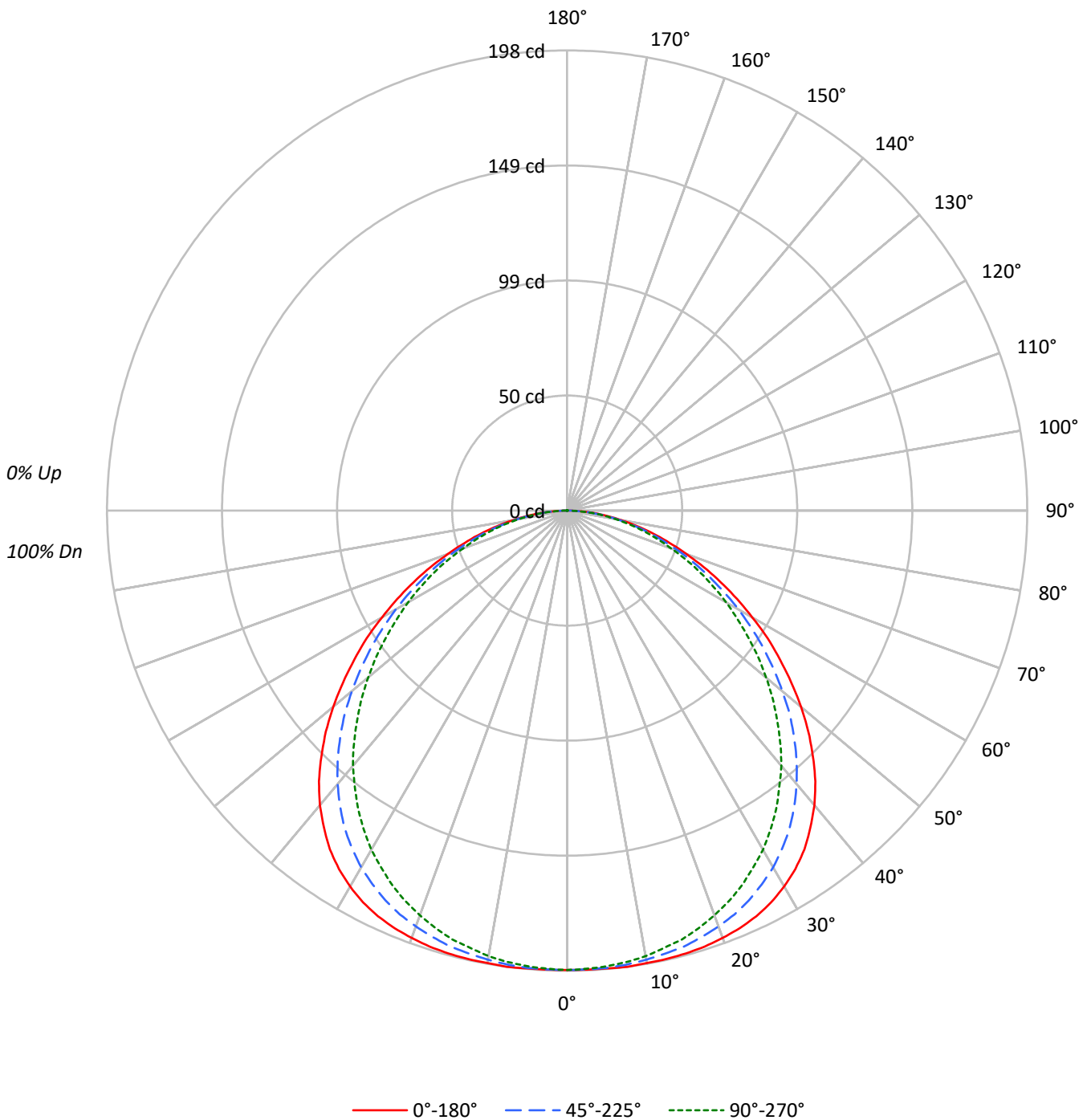
Lumens per Lamp: N/A  
Luminaire Lumens: 579.0 lumens  
Efficiency: N/A  
Efficacy: 64.3 lumens/watt  
Spacing Criteria (0/90/45): 1.39 / 1.26 / 1.4  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 9  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	75	82	78	74	79	75	72	70
3	90	80	72	65	88	78	71	64	75	69	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50
5	76	63	54	47	74	62	54	47	60	52	47	58	51	46	56	50	46	44
6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38
7	65	51	43	37	63	51	42	36	49	42	36	48	41	36	46	40	36	34
8	61	47	38	33	59	46	38	32	45	38	32	44	37	32	43	36	32	30
9	57	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	43352	43352	43352
5°	43539	43473	43319
10°	44021	43687	43353
15°	44790	44087	43360
20°	45667	44431	43240
25°	46599	44785	43043
30°	47298	44893	42665
35°	47649	44678	41974
40°	47374	43968	41048
45°	46392	42826	39632
50°	44826	41244	38139
55°	42742	39377	36357
60°	40348	37365	34690
65°	37825	35075	32844
70°	35006	32826	30582
75°	32534	30670	28721
80°	29675	28034	26771
85°	27172	25160	24153



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	18.8	3.2
10°-20°	54.8	9.5
20°-30°	85.2	14.7
30°-40°	104.2	18.0
40°-50°	106.6	18.4
50°-60°	92.2	15.9
60°-70°	67.2	11.6
70°-80°	38.3	6.6
80°-90°	11.4	2.0
90°-100°	0.0	0.0
100°-110°	0.1	0.0
110°-120°	0.1	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	158.8	27.4
0°-40°	263.1	45.4
0°-60°	461.9	79.8
0°-90°	578.8	100.0
90°-120°	0.2	0.0
90°-150°	0.2	0.0
90°-180°	0.0	0.0
0°-180°	579.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	198	198	198	198	198	
5°	198	198	198	197	197	19
15°	197	196	194	192	191	56
25°	193	190	185	179	178	89
35°	178	174	167	159	157	111
45°	150	146	138	130	128	115
55°	112	109	103	97	95	100
65°	73	71	68	64	63	72
75°	38	38	36	34	34	41
85°	11	10	10	10	10	11
90°	0	0	0	0	0	1
95°	0	0	0	0	0	0
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°
0°	197.7	197.7	197.7	197.7	197.7
2.5°	197.7	197.6	197.6	197.3	197.3
5°	197.8	197.6	197.5	196.9	196.8
7.5°	198.0	197.5	197.0	196.2	195.9
10°	197.7	197.2	196.2	194.9	194.7
12.5°	197.6	196.7	195.2	193.2	192.7
15°	197.3	196.2	194.2	191.6	191.0
17.5°	196.7	195.1	192.4	189.0	188.4
20°	195.7	193.9	190.4	186.4	185.3
22.5°	194.4	192.3	188.1	183.3	181.9
25°	192.6	190.2	185.1	179.4	177.9
27.5°	190.1	187.4	181.3	175.2	173.2
30°	186.8	183.7	177.3	170.3	168.5
32.5°	182.8	179.6	172.3	164.9	162.8
35°	178.0	174.5	166.9	159.0	156.8
37.5°	171.9	168.4	160.5	152.4	150.0
40°	165.5	161.7	153.6	145.5	143.4
42.5°	158.1	154.2	146.2	138.1	135.8
45°	149.6	145.9	138.1	130.4	127.8
47.5°	140.8	137.3	129.9	122.4	120.0
50°	131.4	128.0	120.9	114.1	111.8
52.5°	121.6	118.6	111.9	105.5	103.6
55°	111.8	108.7	103.0	97.3	95.1
57.5°	102.3	99.4	94.0	88.7	86.8
60°	92.0	89.7	85.2	80.6	79.1
62.5°	82.4	80.5	76.2	72.2	71.0
65°	72.9	71.3	67.6	64.2	63.3
67.5°	63.6	62.5	59.4	56.2	55.5
70°	54.6	53.8	51.2	48.8	47.7
72.5°	46.2	45.4	43.4	41.2	40.8
75°	38.4	37.6	36.2	34.2	33.9
77.5°	30.6	30.2	28.9	27.7	27.3
80°	23.5	23.2	22.2	21.4	21.2
82.5°	16.9	16.6	16.1	15.5	15.2
85°	10.8	10.5	10.0	9.6	9.6
87.5°	4.9	4.8	4.5	4.3	4.4
90°	0.0	0.0	0.0	0.0	0.0
92.5°	0.1	0.0	0.1	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.1
100°	0.0	0.0	0.1	0.1	0.1
102.5°	0.0	0.0	0.1	0.1	0.1
105°	0.0	0.1	0.1	0.1	0.1
107.5°	0.0	0.0	0.0	0.1	0.1
110°	0.0	0.1	0.1	0.1	0.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.0	0.0	0.1	0.1	0.1
115°	0.0	0.0	0.0	0.1	0.1
117.5°	0.0	0.1	0.1	0.1	0.1
120°	0.0	0.0	0.1	0.1	0.1
122.5°	0.0	0.0	0.1	0.0	0.1
125°	0.0	0.0	0.1	0.0	0.1
127.5°	0.0	0.0	0.1	0.0	0.1
130°	0.0	0.0	0.1	0.0	0.1
132.5°	0.0	0.0	0.1	0.0	0.1
135°	0.0	0.0	0.0	0.0	0.1
137.5°	0.0	0.0	0.0	0.0	0.1
140°	0.0	0.0	0.0	0.1	0.1
142.5°	0.0	0.0	0.0	0.0	0.1
145°	0.0	0.0	0.0	0.1	0.1
147.5°	0.0	0.0	0.0	0.1	0.1
150°	0.0	0.0	0.0	0.1	0.1
152.5°	0.0	0.0	0.0	0.1	0.1
155°	0.0	0.0	0.0	0.1	0.1
157.5°	0.0	0.0	0.0	0.1	0.1
160°	0.0	0.0	0.0	0.1	0.1
162.5°	0.0	0.0	0.0	0.1	0.1
165°	0.0	0.0	0.0	0.1	0.1
167.5°	0.0	0.0	0.0	0.1	0.0
170°	0.0	0.0	0.0	0.0	0.1
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.1	0.1
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)