

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 COMMERCIAL

Report Number: P584094

Luminaire Tested: **HC820D010-HM80520940-81WDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584094  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-9)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC820D010-HM80520940-81WDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2186.4 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.06  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

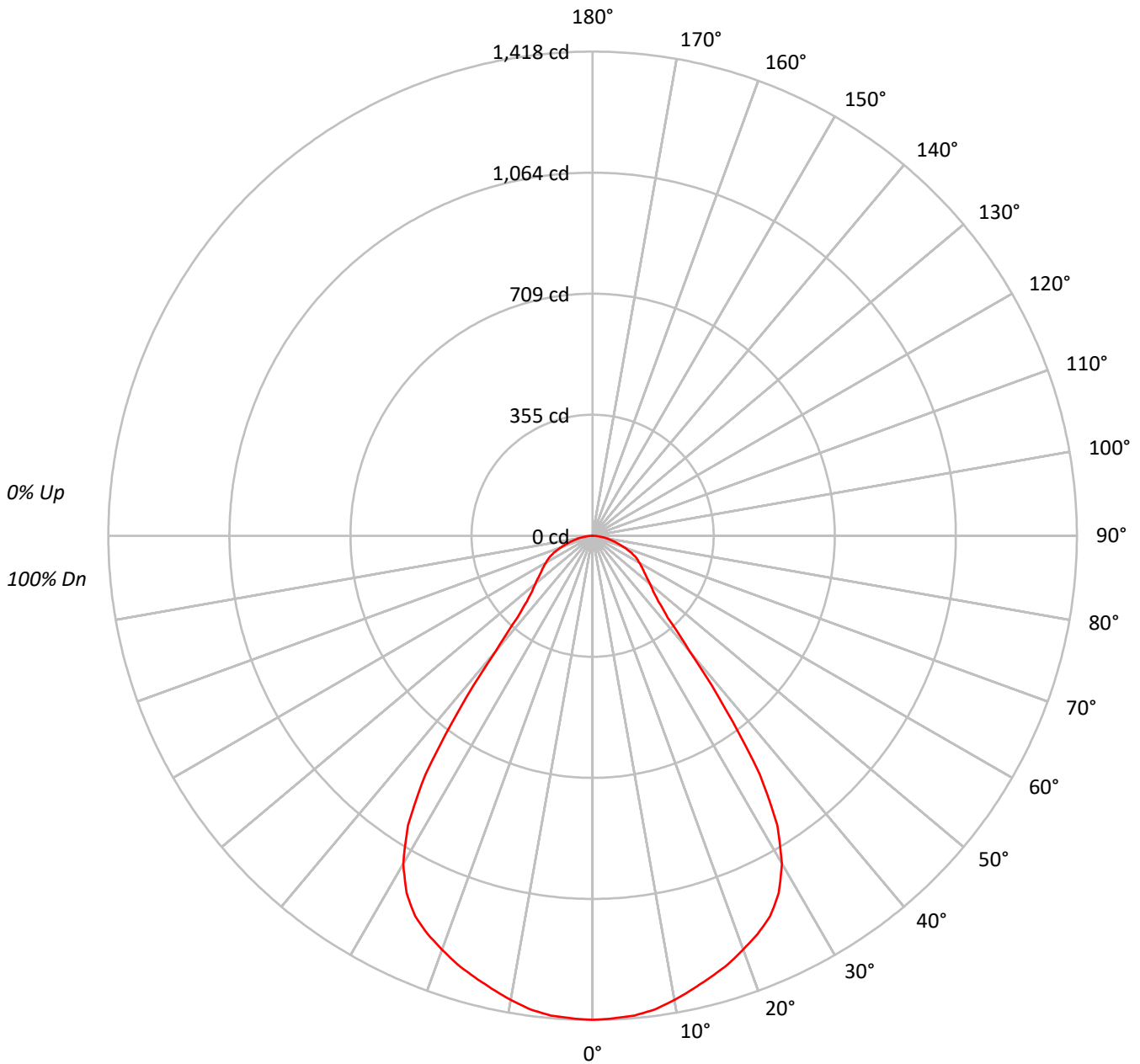
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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		0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	108	104	101	109	105	102	100	101	99	96	97	95	94	94	92	91	89		
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79		
3	97	88	82	76	94	87	81	76	84	79	75	81	77	73	79	75	72	70		
4	90	80	73	68	88	79	73	67	77	71	67	75	70	66	73	68	65	63		
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57		
6	79	68	61	55	77	67	60	55	65	59	55	64	58	54	62	58	54	52		
7	74	63	56	50	73	62	55	50	61	54	50	59	54	50	58	53	49	48		
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44		
9	66	54	47	43	65	54	47	42	53	47	42	52	46	42	51	46	42	40		
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37		

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

	0°
0°	43714
5°	43658
10°	43229
15°	42708
20°	42312
25°	41836
30°	39477
35°	32144
40°	17760
45°	11857
50°	10511
55°	9871
60°	9744
65°	9661
70°	8727
75°	7804
80°	6819
85°	6015



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.7	6.1
10°-20°	377.7	17.3
20°-30°	561.3	25.7
30°-40°	505.5	23.1
40°-50°	224.1	10.2
50°-60°	166.0	7.6
60°-70°	129.0	5.9
70°-80°	70.0	3.2
80°-90°	19.2	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	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°	1072.7	49.1
0°-40°	1578.2	72.2
0°-60°	1968.2	90.0
0°-90°	2186.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2186.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1418	
5°	1410	134
15°	1338	378
25°	1230	561
35°	854	505
45°	272	224
55°	184	166
65°	132	129
75°	66	70
85°	17	19
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1417.6
2.5°	1414.7
5°	1410.4
7.5°	1399.0
10°	1380.6
12.5°	1359.2
15°	1337.8
17.5°	1316.5
20°	1289.4
22.5°	1262.4
25°	1229.6
27.5°	1179.9
30°	1108.7
32.5°	1006.2
35°	853.9
37.5°	637.6
40°	441.2
42.5°	325.9
45°	271.9
47.5°	240.5
50°	219.1
52.5°	199.3
55°	183.6
57.5°	170.8
60°	158.0
62.5°	146.6
65°	132.4
67.5°	115.2
70°	96.8
72.5°	81.1
75°	65.5
77.5°	51.2
80°	38.4
82.5°	27.1
85°	17.0
87.5°	7.1
90°	0.0



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— 0°-180°







(END OF REPORT)