

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: P593595

Luminaire Tested: **HC820D010-HM80520850-81WDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593595  
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-HM80520850-81WDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2485.8 lumens  
Efficiency: N/A  
Efficacy: 124.3 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

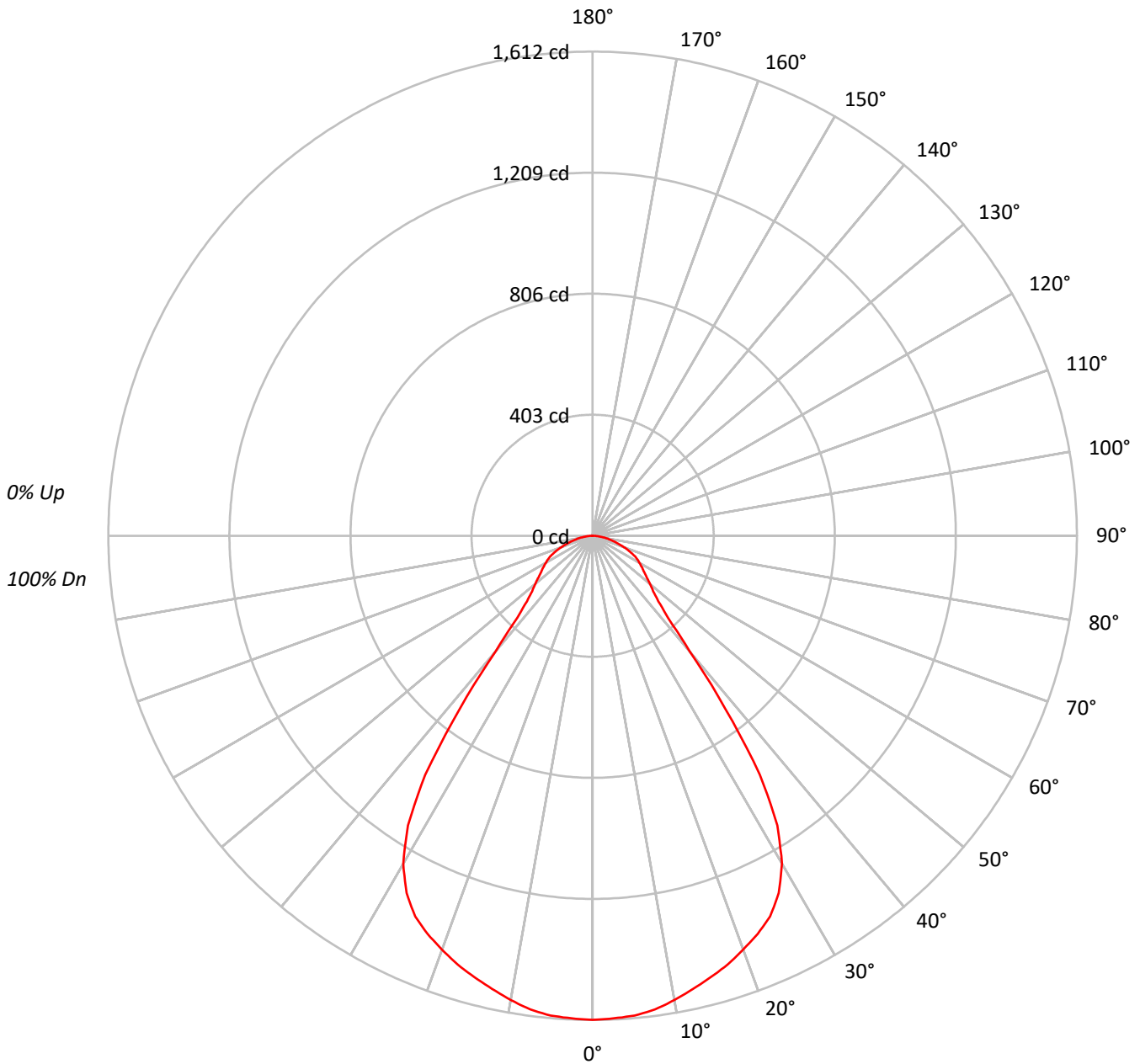
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°
0°	49699
5°	49635
10°	49147
15°	48557
20°	48107
25°	47569
30°	44882
35°	36549
40°	20191
45°	13480
50°	11955
55°	11220
60°	11083
65°	10981
70°	9918
75°	8876
80°	7760
85°	6864



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.0	6.1
10°-20°	429.5	17.3
20°-30°	638.1	25.7
30°-40°	574.7	23.1
40°-50°	254.8	10.3
50°-60°	188.7	7.6
60°-70°	146.8	5.9
70°-80°	79.6	3.2
80°-90°	21.7	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°	1219.6	49.1
0°-40°	1794.3	72.2
0°-60°	2237.8	90.0
0°-90°	2485.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2485.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1612	
5°	1604	152
15°	1521	429
25°	1398	638
35°	971	575
45°	309	255
55°	209	189
65°	150	147
75°	74	80
85°	19	22
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1611.7
2.5°	1608.3
5°	1603.5
7.5°	1590.6
10°	1569.6
12.5°	1545.2
15°	1521.0
17.5°	1496.8
20°	1466.0
22.5°	1435.2
25°	1398.1
27.5°	1341.3
30°	1260.5
32.5°	1143.9
35°	970.9
37.5°	724.9
40°	501.6
42.5°	370.6
45°	309.1
47.5°	273.5
50°	249.2
52.5°	226.6
55°	208.7
57.5°	194.2
60°	179.7
62.5°	166.7
65°	150.5
67.5°	131.1
70°	110.0
72.5°	92.2
75°	74.5
77.5°	58.3
80°	43.7
82.5°	30.7
85°	19.4
87.5°	8.0
90°	0.0



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— 0°-180°







(END OF REPORT)