

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: P592679

Luminaire Tested: **HC4R20D010-HM40525950-42RMDC**

Issue Date: 9/23/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592679  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-13)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/23/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC4R20D010-HM40525950-42RMDC  
Description: HALO COMMERCIAL 4" ROUND, RETROFIT FRAME, WITH 4" MEDIUM DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1948.8 lumens  
Efficiency: N/A  
Efficacy: 97.4 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.02 / 0.96  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

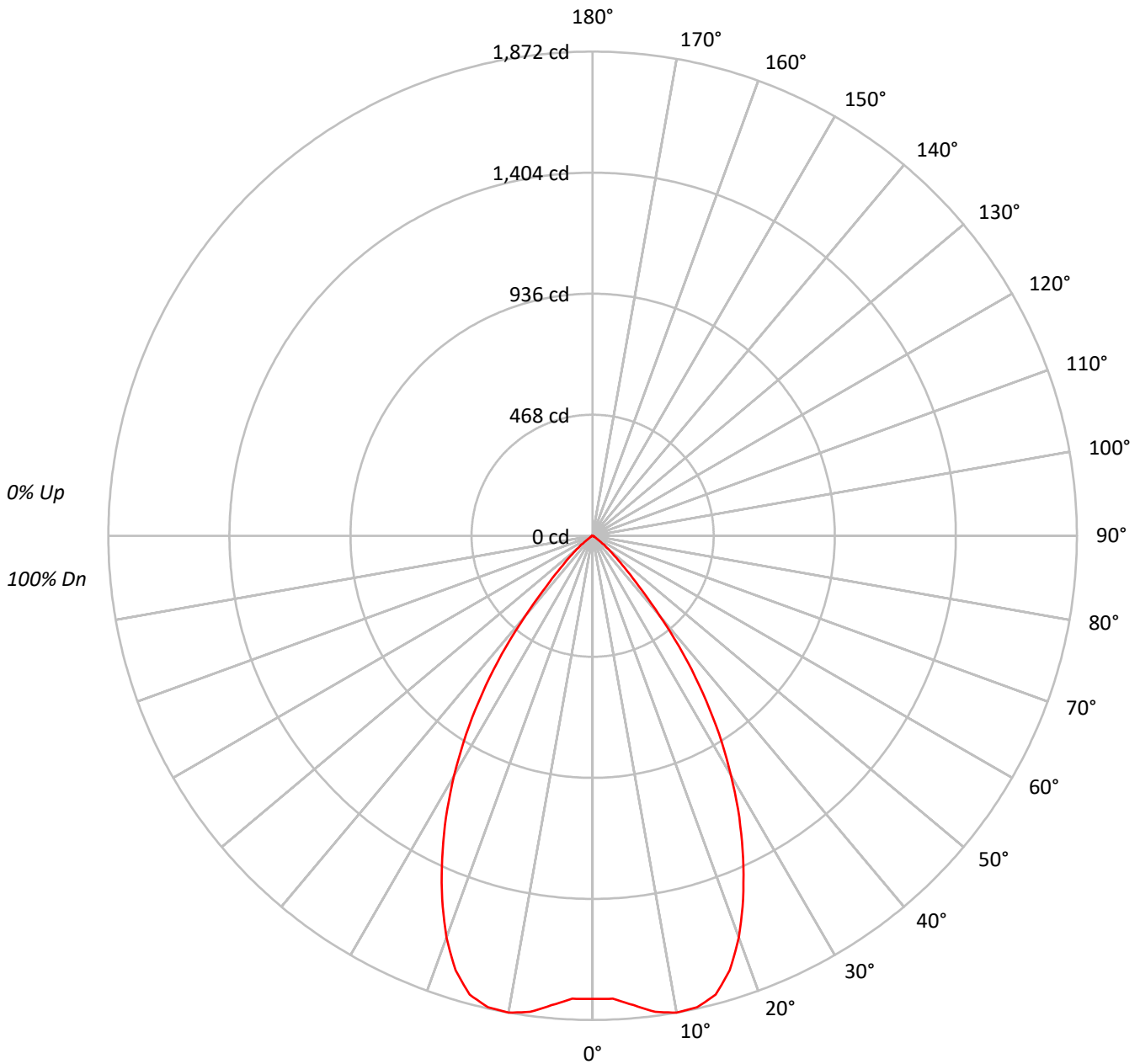
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	86
3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80
4	97	89	83	79	95	88	82	78	86	81	77	84	80	77	82	78	76	74
5	92	83	77	73	90	82	76	72	80	75	72	78	74	71	77	73	70	69
6	87	78	71	67	85	77	71	67	75	70	66	74	69	66	72	68	65	64
7	82	73	66	62	81	72	66	62	71	65	62	69	65	61	68	64	61	60
8	78	68	62	58	77	68	62	58	67	61	57	65	61	57	65	60	57	56
9	74	64	58	54	73	64	58	54	63	57	54	62	57	54	61	57	53	52
10	70	61	55	51	69	60	54	51	59	54	50	58	54	50	58	53	50	49

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

	0°
0°	220838
5°	225569
10°	234465
15°	234566
20°	216884
25°	187419
30°	152468
35°	111999
40°	64729
45°	30247
50°	13970
55°	4860
60°	1554
65°	1109
70°	902
75°	620
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	175.8	9.0
10°-20°	509.1	26.1
20°-30°	626.9	32.2
30°-40°	457.7	23.5
40°-50°	149.2	7.7
50°-60°	24.9	1.3
60°-70°	3.9	0.2
70°-80°	1.4	0.1
80°-90°	0.0	0.0
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°	1311.8	67.3
0°-40°	1769.5	90.8
0°-60°	1943.6	99.7
0°-90°	1948.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1948.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1790	
5°	1822	176
15°	1837	509
25°	1377	627
35°	744	458
45°	173	149
55°	23	25
65°	4	4
75°	1	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1790.4
2.5°	1791.6
5°	1821.8
7.5°	1857.0
10°	1872.0
12.5°	1867.1
15°	1836.9
17.5°	1761.6
20°	1652.3
22.5°	1520.2
25°	1377.1
27.5°	1227.5
30°	1070.5
32.5°	909.7
35°	743.8
37.5°	576.7
40°	402.0
42.5°	262.5
45°	173.4
47.5°	114.4
50°	72.8
52.5°	42.7
55°	22.6
57.5°	8.8
60°	6.3
62.5°	5.0
65°	3.8
67.5°	2.5
70°	2.5
72.5°	1.3
75°	1.3
77.5°	1.3
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)