

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: P580028

Luminaire Tested: **HC420D010-HM40525840-41NDC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580028  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC420D010-HM40525840-41NDC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2065.0 lumens  
Efficiency: N/A  
Efficacy: 103.2 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 0.84 / 0.85  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

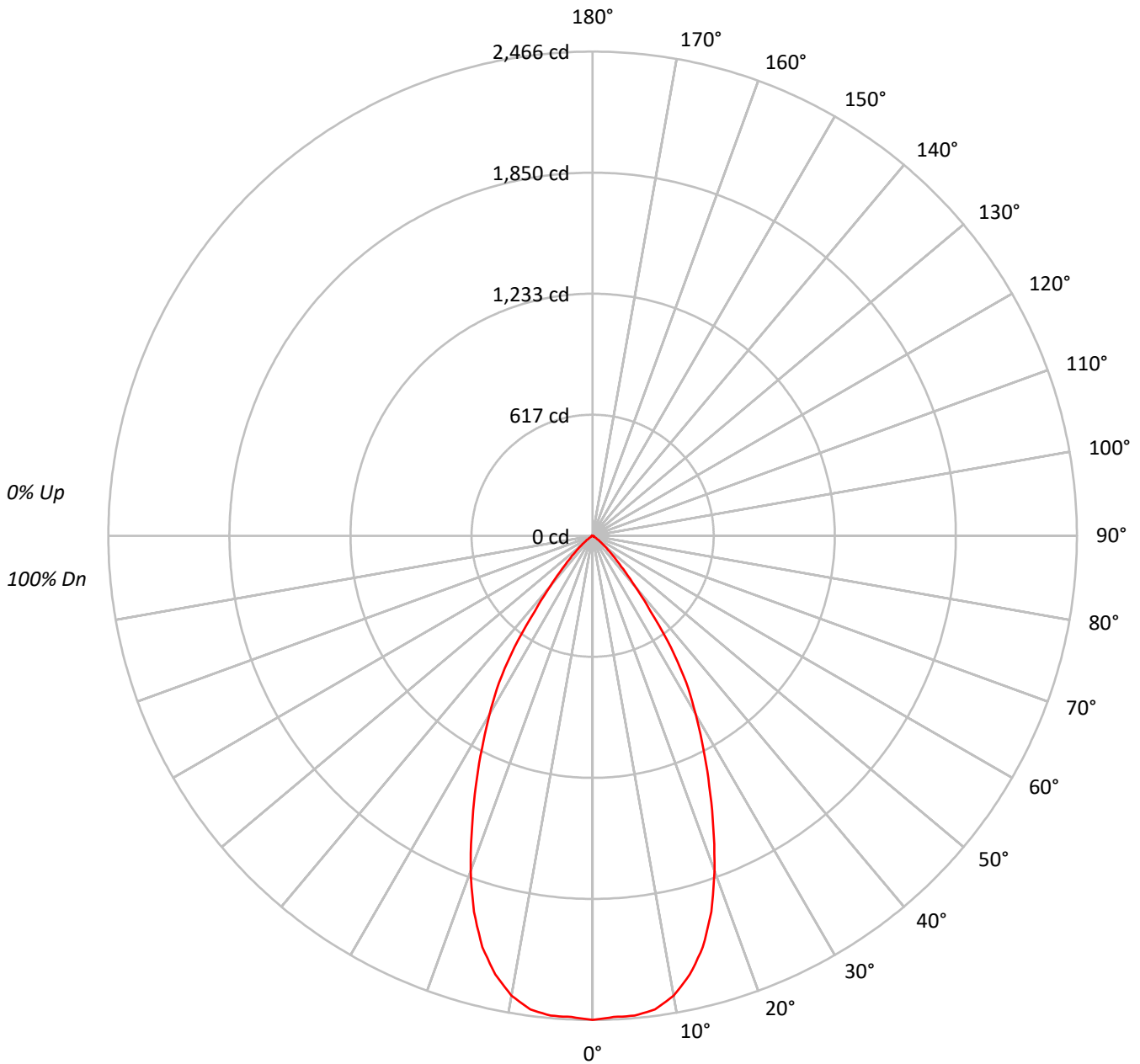
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	100	100
1	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94	94	94	94
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87	87	87	87
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	88	85	83	81	81	81	81
4	97	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76	76	76	76
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	78	75	72	71	71	71	71
6	88	79	73	69	87	78	73	69	77	72	68	75	71	68	74	70	67	66	66	66	66
7	84	75	69	64	82	74	68	64	73	68	64	71	67	64	70	66	63	62	62	62	62
8	80	70	64	60	78	70	64	60	69	64	60	68	63	60	67	62	59	58	58	58	58
9	76	66	61	57	75	66	60	57	65	60	56	64	59	56	63	59	56	55	55	55	55
10	72	63	57	53	71	62	57	53	62	57	53	61	56	53	60	56	53	51	51	51	51

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

	0°
0°	304146
5°	303760
10°	297841
15°	276936
20°	238187
25°	191339
30°	149378
35°	104591
40°	53667
45°	27247
50°	13644
55°	5097
60°	2072
65°	1634
70°	1010
75°	667
80°	994
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	232.0	11.2
10°-20°	598.7	29.0
20°-30°	644.9	31.2
30°-40°	423.7	20.5
40°-50°	131.7	6.4
50°-60°	25.8	1.3
60°-70°	5.5	0.3
70°-80°	2.0	0.1
80°-90°	0.6	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°	1475.5	71.5
0°-40°	1899.3	92.0
0°-60°	2056.9	99.6
0°-90°	2065.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2065.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2466	
5°	2453	232
15°	2169	599
25°	1406	645
35°	695	424
45°	156	132
55°	24	26
65°	6	5
75°	1	2
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2465.8
2.5°	2453.3
5°	2453.3
7.5°	2433.8
10°	2378.0
12.5°	2288.7
15°	2168.7
17.5°	2008.4
20°	1814.6
22.5°	1605.3
25°	1405.9
27.5°	1220.4
30°	1048.8
32.5°	887.1
35°	694.6
37.5°	483.9
40°	333.3
42.5°	230.1
45°	156.2
47.5°	106.0
50°	71.1
52.5°	44.6
55°	23.7
57.5°	9.7
60°	8.4
62.5°	7.0
65°	5.6
67.5°	4.1
70°	2.8
72.5°	2.8
75°	1.4
77.5°	1.4
80°	1.4
82.5°	1.4
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)