

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: P580057

Luminaire Tested: **HC420D010-HM40525930-41WDBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580057  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC420D010-HM40525930-41WDBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1493.0 lumens  
Efficiency: N/A  
Efficacy: 74.6 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.1 / 1.03  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

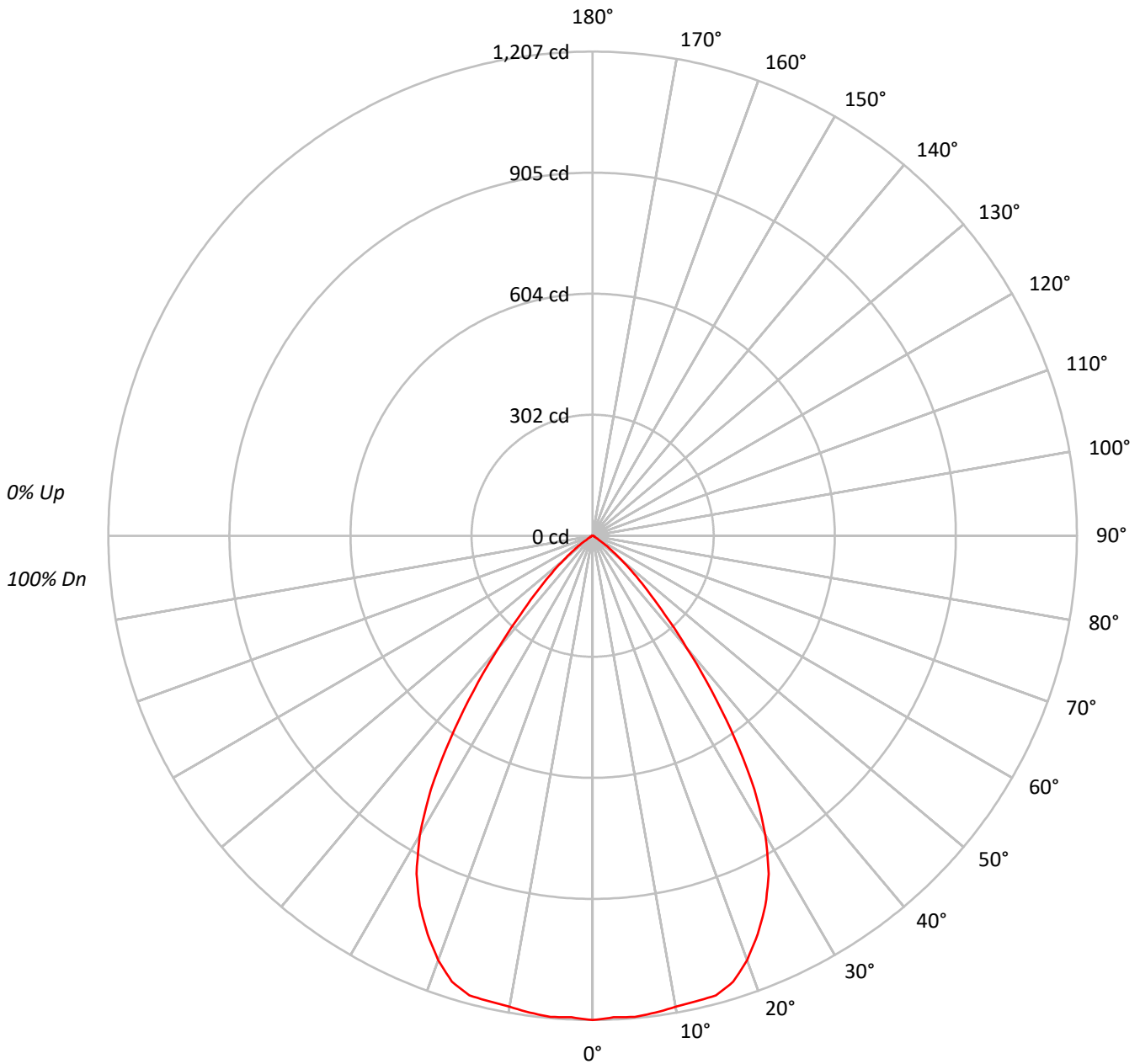
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94	93			93
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87	85			85
3	101	94	89	84	99	93	88	84	90	86	82	87	84	81	85	82	80	78			78
4	95	87	81	77	93	86	80	76	84	79	75	82	78	74	80	76	73	72			72
5	90	81	75	70	88	80	74	70	78	73	69	76	72	68	75	71	68	66			66
6	85	75	69	64	83	74	68	64	73	67	63	71	67	63	70	66	62	61			61
7	80	70	64	59	79	69	63	59	68	63	59	67	62	58	66	61	58	56			56
8	76	65	59	55	74	65	59	54	64	58	54	63	58	54	62	57	54	52			52
9	72	61	55	51	71	61	55	51	60	54	50	59	54	50	58	53	50	49			49
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45			45

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

	0°
0°	148903
5°	149051
10°	149321
15°	151512
20°	147722
25°	138601
30°	122601
35°	93237
40°	58723
45°	33736
50°	17903
55°	7419
60°	1974
65°	1664
70°	1226
75°	1096
80°	781
85°	1557



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.5	7.7
10°-20°	332.2	22.3
20°-30°	463.6	31.1
30°-40°	381.6	25.6
40°-50°	157.2	10.5
50°-60°	35.4	2.4
60°-70°	5.7	0.4
70°-80°	2.1	0.1
80°-90°	0.7	0.1
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°	910.3	61.0
0°-40°	1291.9	86.5
0°-60°	1484.5	99.4
0°-90°	1493.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1493.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1207	
5°	1204	114
15°	1186	332
25°	1018	464
35°	619	382
45°	193	157
55°	34	35
65°	6	6
75°	2	2
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1207.2
2.5°	1201.5
5°	1203.8
7.5°	1199.1
10°	1192.2
12.5°	1188.8
15°	1186.5
17.5°	1165.8
20°	1125.4
22.5°	1074.9
25°	1018.4
27.5°	950.5
30°	860.8
32.5°	750.4
35°	619.2
37.5°	486.8
40°	364.7
42.5°	265.9
45°	193.4
47.5°	138.1
50°	93.3
52.5°	58.7
55°	34.5
57.5°	17.2
60°	8.0
62.5°	6.9
65°	5.7
67.5°	4.6
70°	3.4
72.5°	2.3
75°	2.3
77.5°	1.1
80°	1.1
82.5°	1.1
85°	1.1
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)