

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: P580068

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580068  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC420D010-HM40525930-41PSMDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" PLASTIC TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1627.7 lumens  
Efficiency: N/A  
Efficacy: 81.4 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.03 / 0.99  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

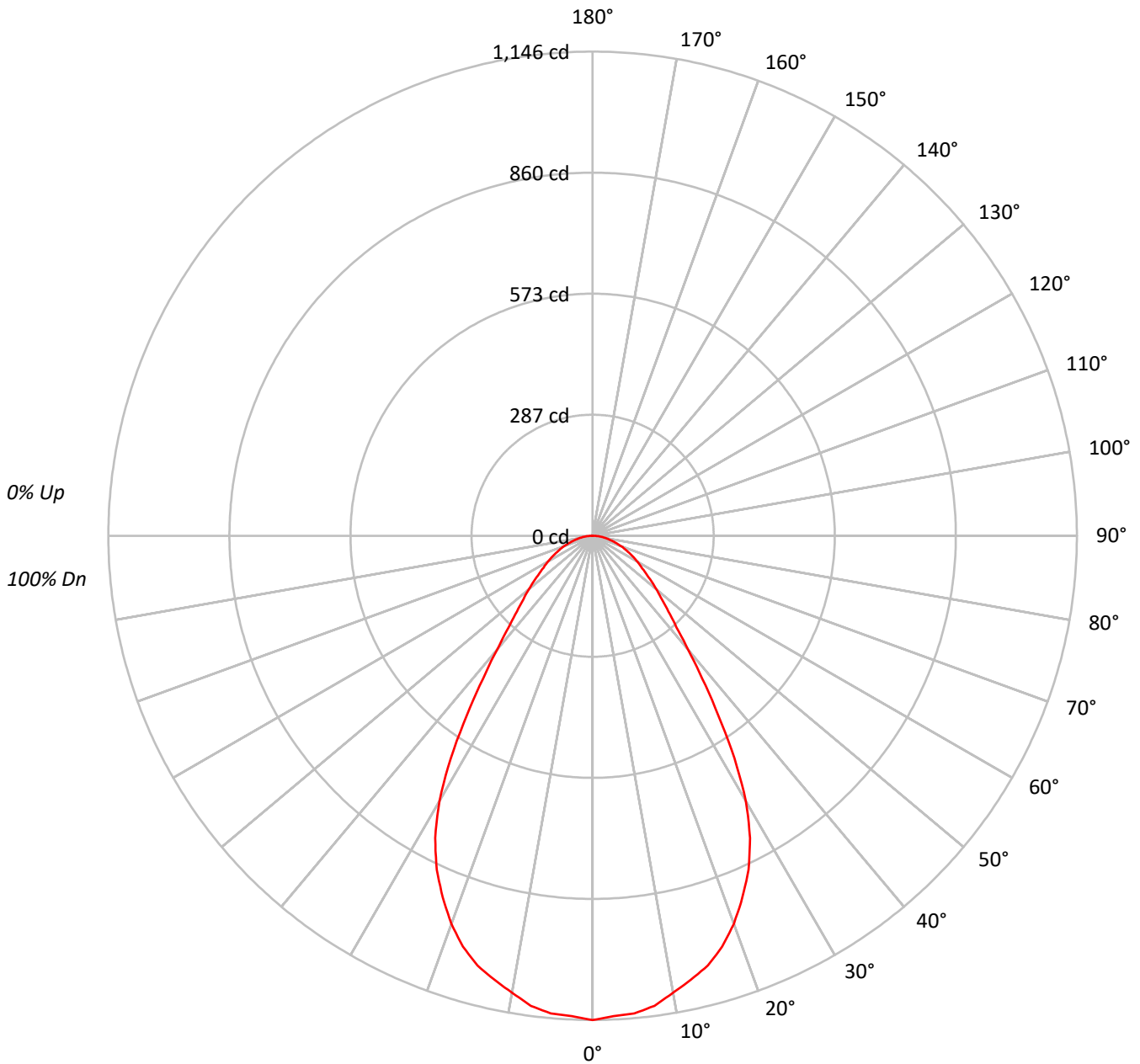
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89			
2	103	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70			
4	90	80	73	68	88	79	72	67	77	71	66	74	69	65	72	68	65	63			
5	84	74	66	61	82	72	66	60	71	64	60	69	63	59	67	62	59	57			
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52			
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47			
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44			
9	66	54	47	42	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°	141391
5°	140495
10°	137510
15°	134477
20°	128256
25°	118731
30°	103260
35°	77984
40°	56517
45°	44150
50°	37764
55°	32666
60°	30096
65°	27552
70°	25714
75°	23543
80°	22091
85°	21087



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.2	6.6
10°-20°	295.0	18.1
20°-30°	396.6	24.4
30°-40°	326.1	20.0
40°-50°	200.3	12.3
50°-60°	138.6	8.5
60°-70°	94.5	5.8
70°-80°	52.6	3.2
80°-90°	16.7	1.0
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°	798.8	49.1
0°-40°	1124.9	69.1
0°-60°	1463.8	89.9
0°-90°	1627.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1627.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1146	
5°	1135	107
15°	1053	295
25°	872	397
35°	518	326
45°	253	200
55°	152	139
65°	94	94
75°	49	53
85°	15	17
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1146.3
2.5°	1138.2
5°	1134.7
7.5°	1122.1
10°	1097.9
12.5°	1076.0
15°	1053.1
17.5°	1019.7
20°	977.1
22.5°	926.4
25°	872.4
27.5°	806.8
30°	725.0
32.5°	624.9
35°	517.9
37.5°	425.8
40°	351.0
42.5°	293.5
45°	253.1
47.5°	222.1
50°	196.8
52.5°	173.8
55°	151.9
57.5°	135.8
60°	122.0
62.5°	108.2
65°	94.4
67.5°	82.8
70°	71.3
72.5°	59.9
75°	49.4
77.5°	39.1
80°	31.1
82.5°	23.1
85°	14.9
87.5°	8.0
90°	0.0



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— 0°-180°







(END OF REPORT)