

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P345199

Luminaire Tested: **PR4FS24D010 PR4M24MD9FSMW 2000Lm3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345199  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1908-453-1)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PR4FS24D010 PR4M24MD9FSMW 2000Lm3000K  
Description: PR4 MEDIUM LENS WITH, MATTE WHITE FINISH  
Light Source: ARRAY OF HIGH LUMEN LEDs 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1674.3 lumens  
Efficiency: N/A  
Efficacy: 76.1 lumens/watt  
Spacing Criteria (0/90/45): 1.01 / 1.01 / 1.02  
Luminous Opening: Circular (Dia: 0.4' x H: 0')  
CIE Type: Direct

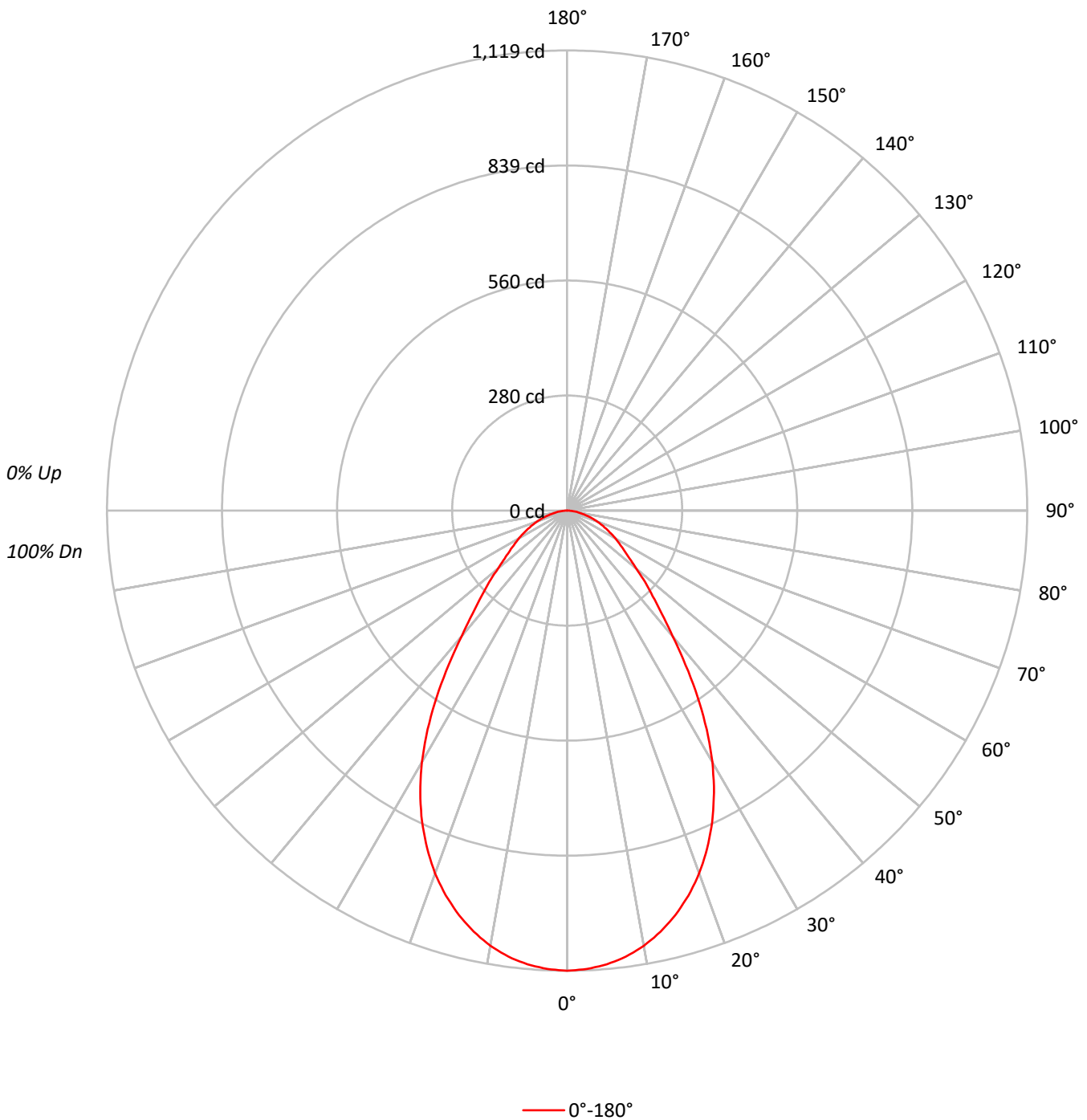
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88					88			
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78					78			
3	96	87	81	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69					69			
4	89	79	72	66	87	78	71	66	76	70	65	74	68	64	72	67	64	62					62			
5	83	73	65	59	81	72	64	59	70	63	59	68	62	58	66	61	57	56					56			
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50					50			
7	73	62	54	49	72	61	54	49	59	53	48	58	52	48	57	52	48	46					46			
8	69	57	50	45	67	56	49	44	55	49	44	54	48	44	53	48	44	42					42			
9	65	53	46	41	64	53	46	41	51	45	41	50	45	41	50	44	40	39					39			
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	46	41	37	36					36			

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

	0°
0°	97878
5°	97260
10°	95462
15°	92203
20°	87405
25°	80607
30°	71367
35°	59082
40°	45571
45°	36393
50°	29815
55°	25879
60°	23757
65°	21711
70°	19999
75°	17371
80°	15565
85°	12344



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	104.7	6.3
10°-20°	285.4	17.0
20°-30°	381.2	22.8
30°-40°	343.4	20.5
40°-50°	230.6	13.8
50°-60°	154.0	9.2
60°-70°	104.3	6.2
70°-80°	55.6	3.3
80°-90°	15.1	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°	771.3	46.1
0°-40°	1114.7	66.6
0°-60°	1499.3	89.5
0°-90°	1674.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1674.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1119	
5°	1108	105
15°	1018	285
25°	835	381
35°	553	343
45°	294	231
55°	170	154
65°	105	104
75°	51	56
85°	12	15
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1119.0
2.5°	1115.9
5°	1107.7
7.5°	1094.3
10°	1074.8
12.5°	1049.1
15°	1018.2
17.5°	981.2
20°	939.0
22.5°	889.7
25°	835.2
27.5°	773.4
30°	706.6
32.5°	631.5
35°	553.3
37.5°	473.1
40°	399.1
42.5°	340.4
45°	294.2
47.5°	257.1
50°	219.1
52.5°	191.3
55°	169.7
57.5°	151.2
60°	135.8
62.5°	119.3
65°	104.9
67.5°	90.5
70°	78.2
72.5°	64.8
75°	51.4
77.5°	40.1
80°	30.9
82.5°	21.6
85°	12.3
87.5°	6.2
90°	0.0

(END OF REPORT)