

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: P345211

Luminaire Tested: **PR4FS24D010 PR4M24MD9FSMW 4000Lm3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345211  
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 4000Lm3000K  
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: 3068.6 lumens  
Efficiency: N/A  
Efficacy: 68.2 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

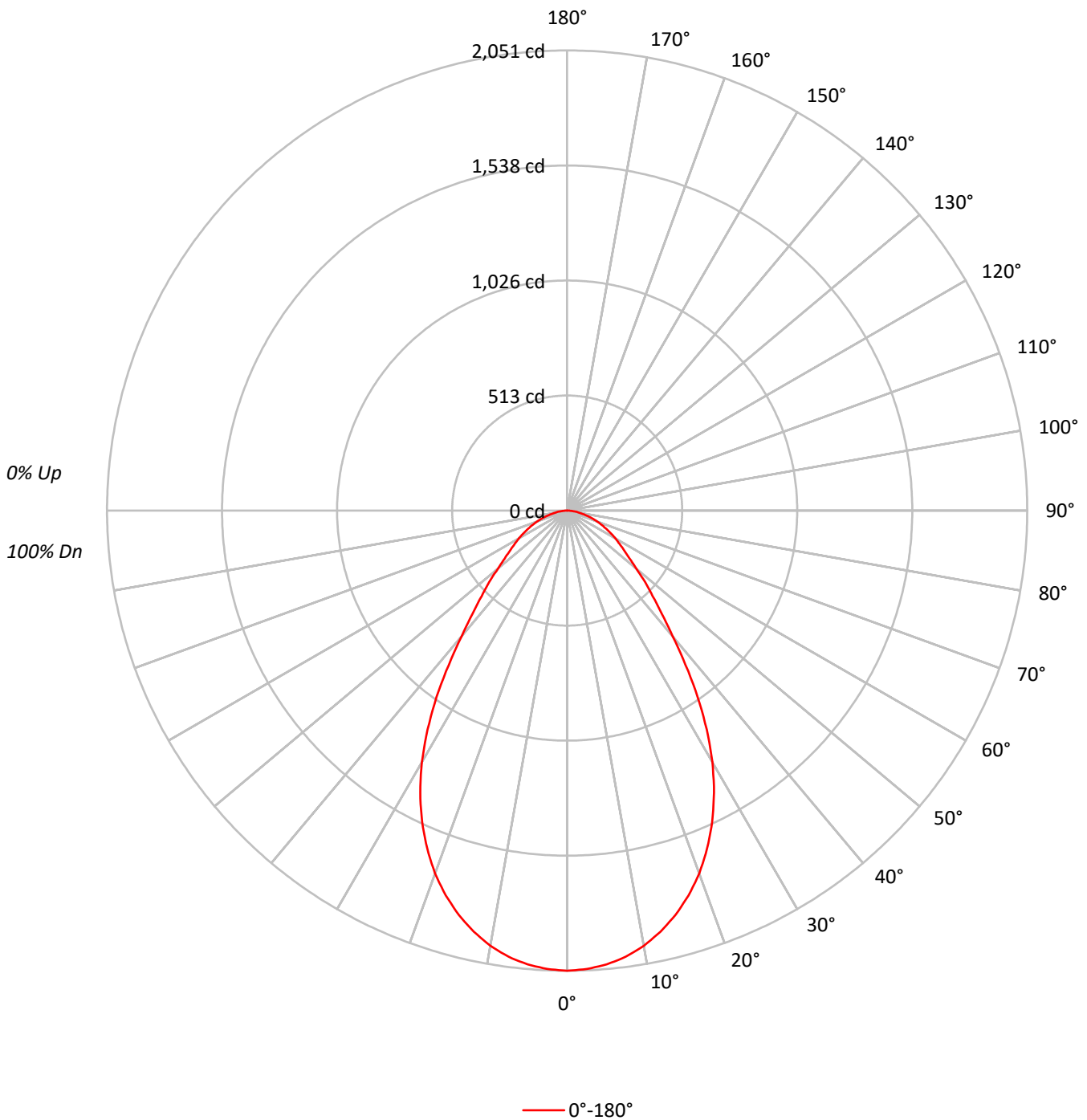
Input Watts (W): 45  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78
3	96	87	81	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	74	68	64	72	67	64	62
5	83	73	65	59	81	72	64	59	70	63	59	68	62	58	66	61	57	56
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50
7	73	62	54	49	72	61	54	49	59	53	48	58	52	48	57	52	48	46
8	69	57	50	45	67	56	49	44	55	49	44	54	48	44	53	48	44	42
9	65	53	46	41	64	53	46	41	51	45	41	50	45	41	50	44	40	39
10	61	50	43	38	60	49	42	38	48	42	38	47	42	38	46	41	37	36

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

	0°
0°	179400
5°	178259
10°	174964
15°	168994
20°	160205
25°	147731
30°	130796
35°	108297
40°	83514
45°	66687
50°	54635
55°	47427
60°	43525
65°	39800
70°	36648
75°	31869
80°	28510
85°	22681



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.9	6.3
10°-20°	523.2	17.0
20°-30°	698.6	22.8
30°-40°	629.4	20.5
40°-50°	422.7	13.8
50°-60°	282.2	9.2
60°-70°	191.1	6.2
70°-80°	101.9	3.3
80°-90°	27.7	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°	1413.7	46.1
0°-40°	2043.0	66.6
0°-60°	2747.9	89.5
0°-90°	3068.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3068.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2051	
5°	2030	192
15°	1866	523
25°	1531	699
35°	1014	629
45°	539	423
55°	311	282
65°	192	191
75°	94	102
85°	23	28
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2051.0
2.5°	2045.3
5°	2030.2
7.5°	2005.7
10°	1969.9
12.5°	1922.8
15°	1866.2
17.5°	1798.4
20°	1721.1
22.5°	1630.6
25°	1530.7
27.5°	1417.6
30°	1295.0
32.5°	1157.4
35°	1014.2
37.5°	867.1
40°	731.4
42.5°	624.0
45°	539.1
47.5°	471.3
50°	401.5
52.5°	350.6
55°	311.0
57.5°	277.1
60°	248.8
62.5°	218.7
65°	192.3
67.5°	165.9
70°	143.3
72.5°	118.8
75°	94.3
77.5°	73.5
80°	56.6
82.5°	39.6
85°	22.6
87.5°	11.3
90°	0.0

(END OF REPORT)