

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: P345213

Luminaire Tested: **PR4FS24D010 PR4M24MD9FSMW 4000Lm4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345213  
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 4000Lm4000K  
Description: PR4 MEDIUM LENS WITH, MATTE WHITE FINISH  
Light Source: ARRAY OF HIGH LUMEN LEDs 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3201.2 lumens  
Efficiency: N/A  
Efficacy: 71.1 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

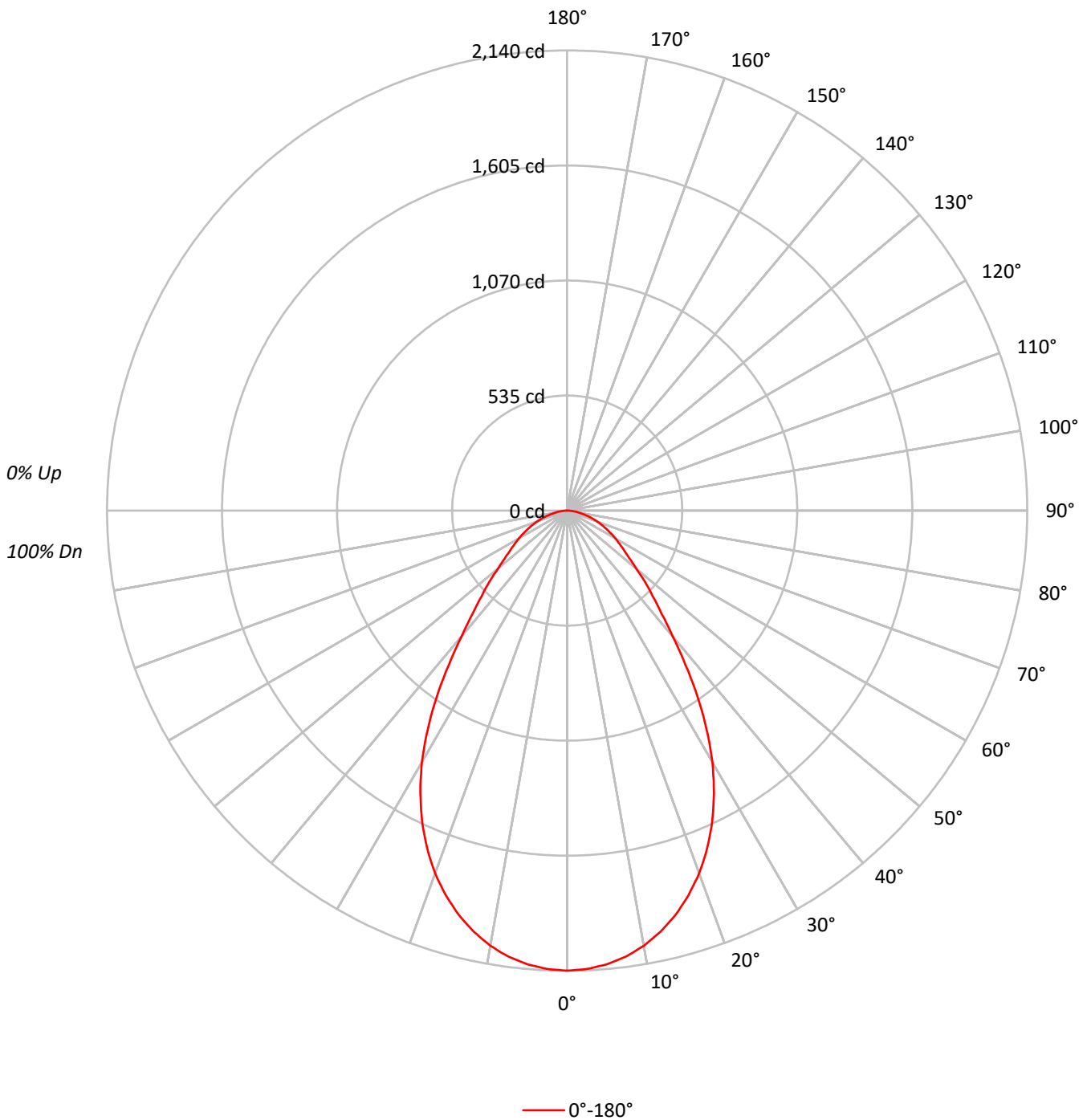
Input Watts (W): 45  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	187150
5°	185959
10°	182523
15°	176302
20°	167121
25°	154110
30°	136452
35°	112974
40°	87122
45°	69569
50°	57003
55°	49486
60°	45414
65°	41518
70°	38234
75°	33221
80°	29719
85°	23685



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	200.2	6.3
10°-20°	545.8	17.0
20°-30°	728.8	22.8
30°-40°	656.6	20.5
40°-50°	441.0	13.8
50°-60°	294.4	9.2
60°-70°	199.4	6.2
70°-80°	106.3	3.3
80°-90°	28.9	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°	1474.7	46.1
0°-40°	2131.3	66.6
0°-60°	2866.7	89.5
0°-90°	3201.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3201.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2140	
5°	2118	200
15°	1947	546
25°	1597	729
35°	1058	657
45°	562	441
55°	324	294
65°	201	199
75°	98	106
85°	24	29
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2139.6
2.5°	2133.7
5°	2117.9
7.5°	2092.4
10°	2055.0
12.5°	2005.9
15°	1946.9
17.5°	1876.1
20°	1795.4
22.5°	1701.0
25°	1596.8
27.5°	1478.8
30°	1351.0
32.5°	1207.4
35°	1058.0
37.5°	904.6
40°	763.0
42.5°	650.9
45°	562.4
47.5°	491.6
50°	418.9
52.5°	365.8
55°	324.5
57.5°	289.1
60°	259.6
62.5°	228.1
65°	200.6
67.5°	173.1
70°	149.5
72.5°	123.9
75°	98.3
77.5°	76.7
80°	59.0
82.5°	41.3
85°	23.6
87.5°	11.8
90°	0.0

(END OF REPORT)