

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: P345183

Luminaire Tested: **PR4FS12D010 PR4M12MD9FSMW 1000Lm4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345183  
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: PR4FS12D010 PR4M12MD9FSMW 1000Lm4000K  
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: 813.3 lumens  
Efficiency: N/A  
Efficacy: 78.2 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

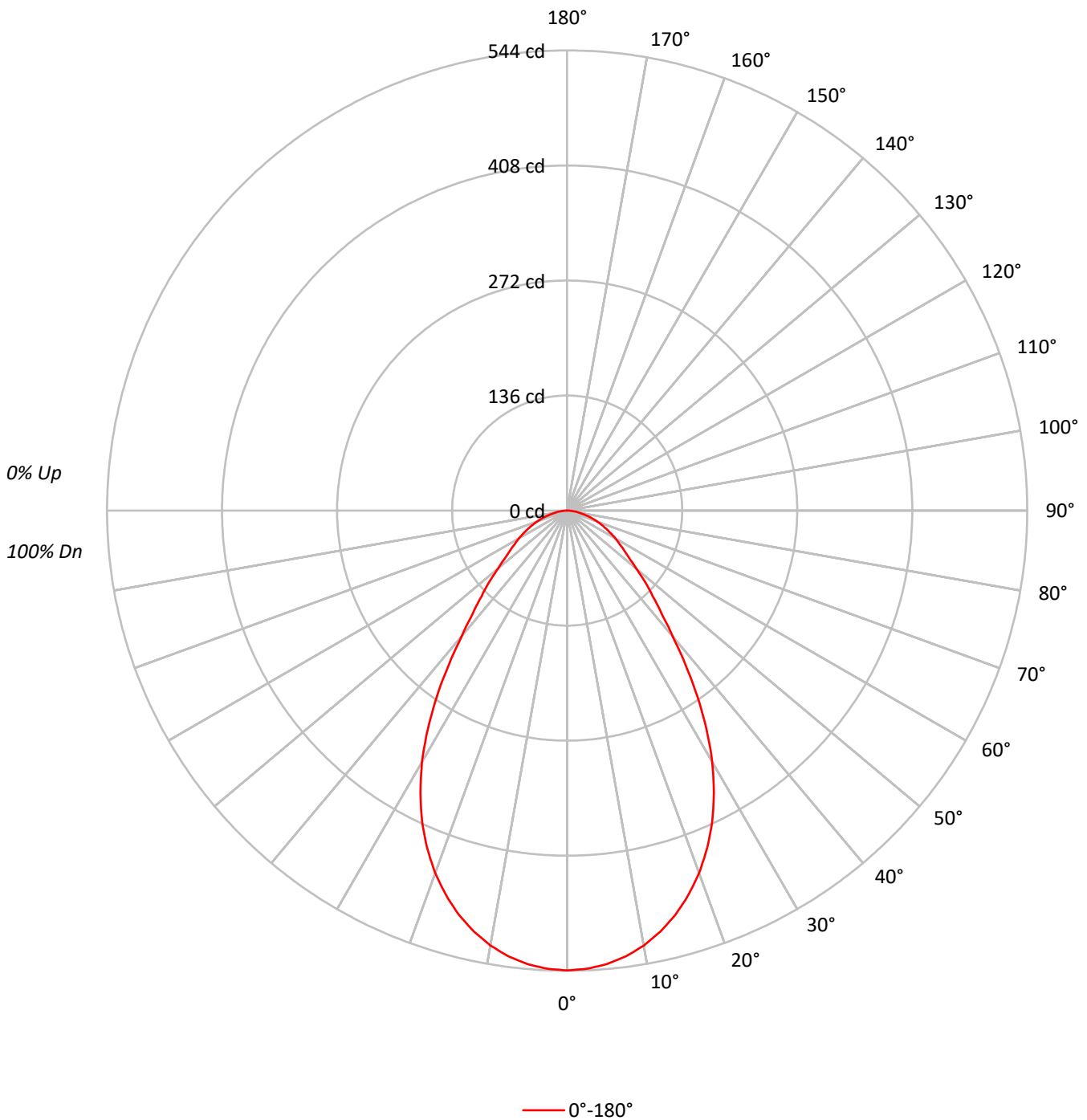
Input Watts (W): 10.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	47548
5°	47247
10°	46372
15°	44789
20°	42455
25°	39155
30°	34664
35°	28703
40°	22129
45°	17677
50°	14479
55°	12566
60°	11528
65°	10555
70°	9718
75°	8449
80°	7556
85°	6022



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.9	6.3
10°-20°	138.6	17.0
20°-30°	185.2	22.8
30°-40°	166.8	20.5
40°-50°	112.0	13.8
50°-60°	74.8	9.2
60°-70°	50.7	6.2
70°-80°	27.0	3.3
80°-90°	7.3	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°	374.7	46.1
0°-40°	541.5	66.6
0°-60°	728.3	89.5
0°-90°	813.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	813.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	544	
5°	538	51
15°	495	139
25°	406	185
35°	269	167
45°	143	112
55°	82	75
65°	51	51
75°	25	27
85°	6	7
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	543.6
2.5°	542.1
5°	538.1
7.5°	531.6
10°	522.1
12.5°	509.6
15°	494.6
17.5°	476.6
20°	456.1
22.5°	432.2
25°	405.7
27.5°	375.7
30°	343.2
32.5°	306.8
35°	268.8
37.5°	229.8
40°	193.8
42.5°	165.4
45°	142.9
47.5°	124.9
50°	106.4
52.5°	92.9
55°	82.4
57.5°	73.4
60°	65.9
62.5°	58.0
65°	51.0
67.5°	44.0
70°	38.0
72.5°	31.5
75°	25.0
77.5°	19.5
80°	15.0
82.5°	10.5
85°	6.0
87.5°	3.0
90°	0.0

(END OF REPORT)