

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: P345191

Luminaire Tested: **PR4FS12D010 PR4M12MD8FSMW 2000Lm3500K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345191  
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 PR4M12MD8FSMW 2000Lm3500K  
Description: PR4 MEDIUM LENS WITH, MATTE WHITE FINISH  
Light Source: ARRAY OF HIGH LUMEN LEDs 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2135.0 lumens  
Efficiency: N/A  
Efficacy: 107.8 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

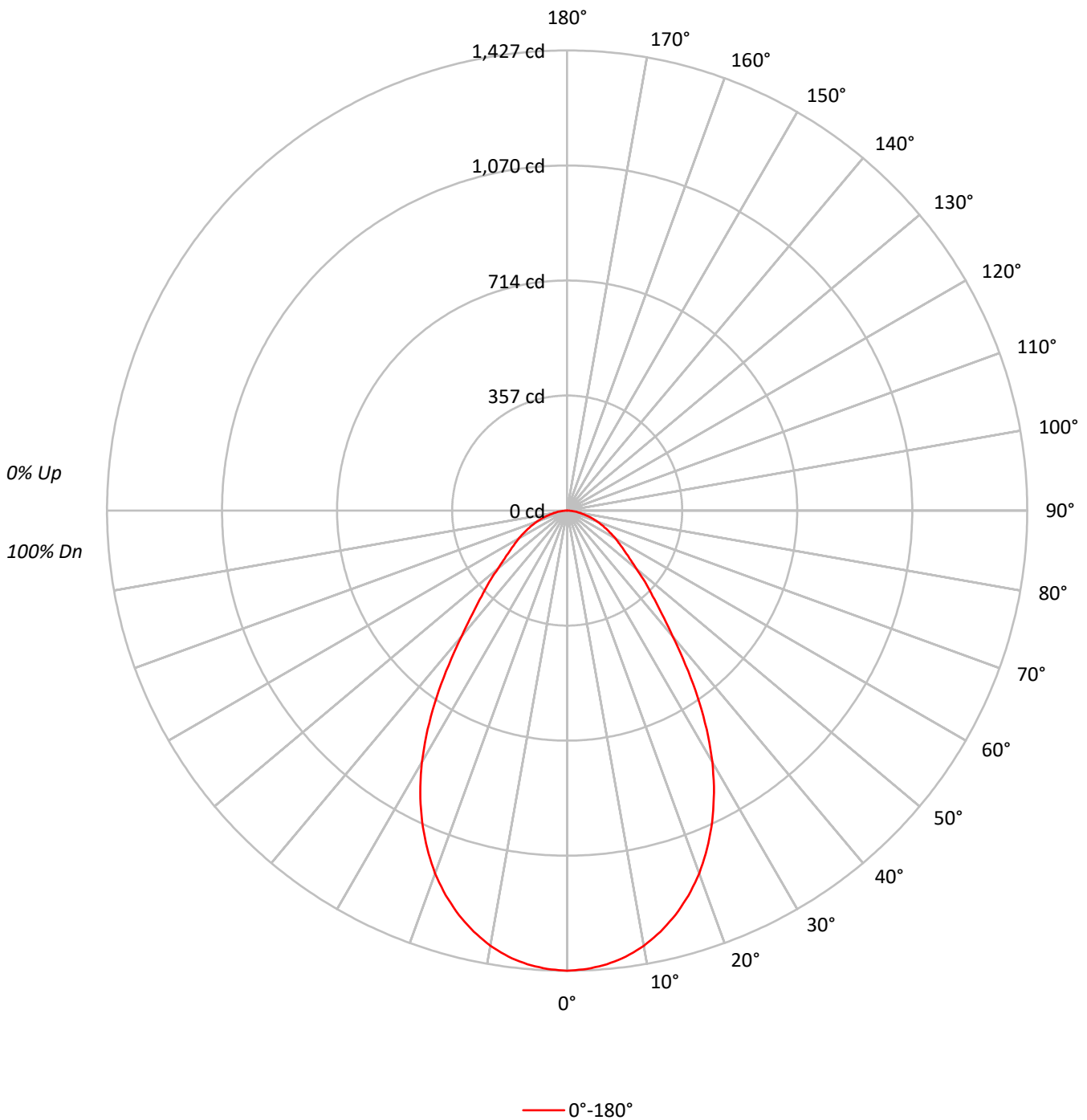
Input Watts (W): 19.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	124819
5°	124031
10°	121735
15°	117577
20°	111467
25°	102785
30°	91002
35°	75344
40°	58108
45°	46400
50°	38020
55°	33001
60°	30282
65°	27693
70°	25498
75°	22170
80°	19796
85°	15757



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.5	6.3
10°-20°	364.0	17.0
20°-30°	486.1	22.8
30°-40°	437.9	20.5
40°-50°	294.1	13.8
50°-60°	196.4	9.2
60°-70°	133.0	6.2
70°-80°	70.9	3.3
80°-90°	19.2	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°	983.6	46.1
0°-40°	1421.4	66.6
0°-60°	1911.9	89.6
0°-90°	2135.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2135.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1427	
5°	1413	134
15°	1298	364
25°	1065	486
35°	706	438
45°	375	294
55°	216	196
65°	134	133
75°	66	71
85°	16	19
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1427.0
2.5°	1423.0
5°	1412.6
7.5°	1395.5
10°	1370.6
12.5°	1337.8
15°	1298.4
17.5°	1251.2
20°	1197.5
22.5°	1134.5
25°	1065.0
27.5°	986.3
30°	901.0
32.5°	805.3
35°	705.6
37.5°	603.3
40°	508.9
42.5°	434.1
45°	375.1
47.5°	327.9
50°	279.4
52.5°	244.0
55°	216.4
57.5°	192.8
60°	173.1
62.5°	152.1
65°	133.8
67.5°	115.4
70°	99.7
72.5°	82.6
75°	65.6
77.5°	51.2
80°	39.3
82.5°	27.5
85°	15.7
87.5°	7.9
90°	0.0

(END OF REPORT)