

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: P345229

Luminaire Tested: **PR4FS12D010 PR4M12MD9FSMMS 2000Lm3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345229  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1908-453-2)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PR4FS12D010 PR4M12MD9FSMMS 2000Lm3000K  
Description: PR4 MEDIUM LENS WITH, MATTE METALLIC SILVER FINISH  
Light Source: ARRAY OF HIGH LUMEN LEDs 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1570.4 lumens  
Efficiency: N/A  
Efficacy: 75.9 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.02 / 1.02  
Luminous Opening: Circular (Dia: 0.4' x H: 0')  
CIE Type: Direct

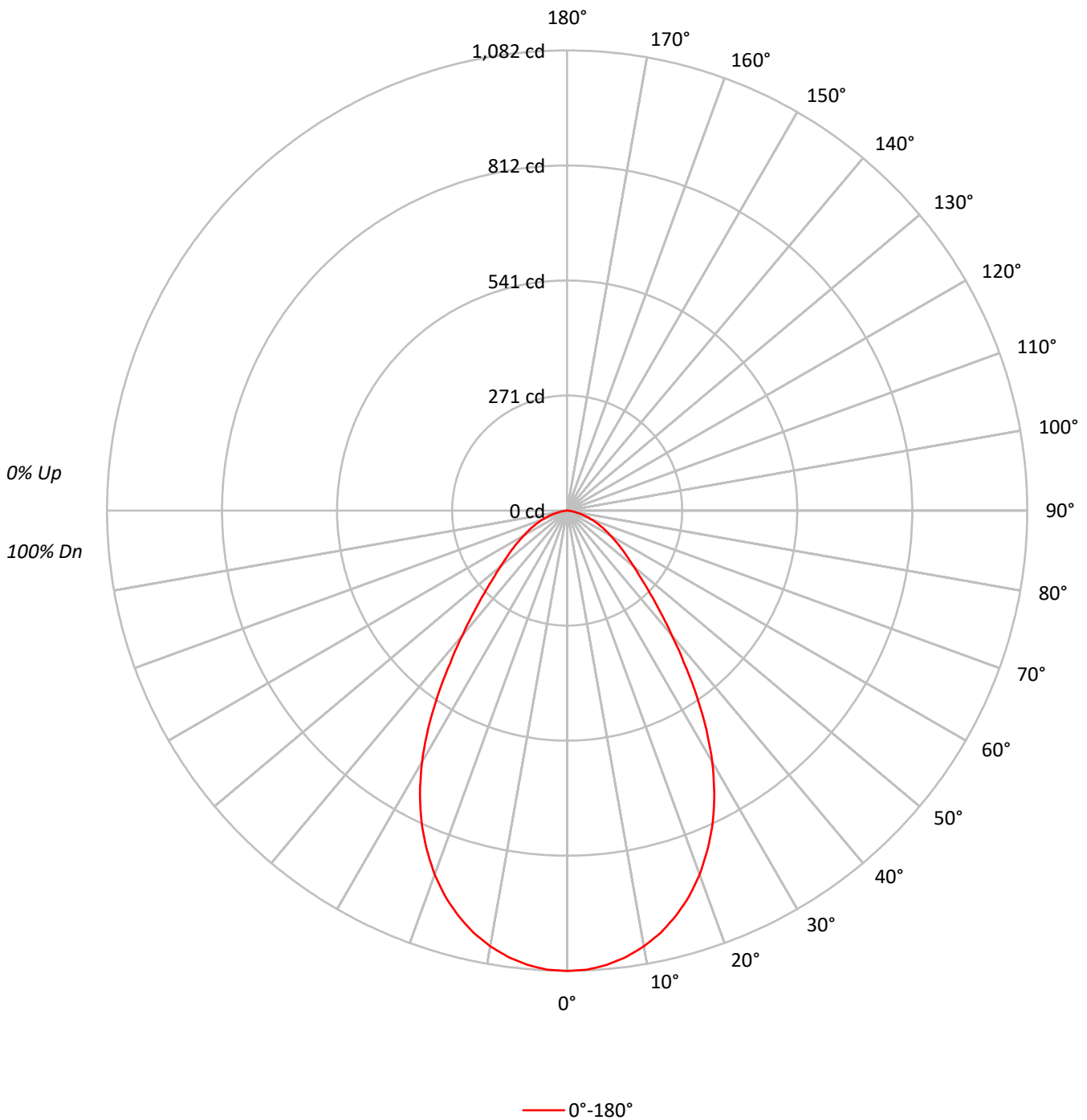
Input Watts (W): 20.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	102	109	106	103	100	101	99	97		98	96	94		94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85		89	86	83		86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75		81	77	73		79	75	72	70
4	90	80	73	68	88	79	73	67	77	71	67		75	70	66		73	68	65	63
5	84	74	66	61	82	73	66	60	71	65	60		69	63	59		67	62	59	57
6	79	68	60	55	77	67	60	55	65	59	54		64	58	54		62	57	53	52
7	74	63	55	50	72	62	55	50	60	54	49		59	53	49		58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45		55	49	45		54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42		51	46	42		51	45	42	40
10	62	50	44	39	61	50	43	39	49	43	39		48	43	39		47	42	39	37

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

	0°
0°	94686
5°	94143
10°	92398
15°	89369
20°	84780
25°	78184
30°	68943
35°	56636
40°	43778
45°	34203
50°	27692
55°	23835
60°	20678
65°	18296
70°	15779
75°	12504
80°	8815
85°	5118



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.3	6.5
10°-20°	276.7	17.6
20°-30°	369.4	23.5
30°-40°	329.7	21.0
40°-50°	217.1	13.8
50°-60°	140.7	9.0
60°-70°	87.8	5.6
70°-80°	40.2	2.6
80°-90°	7.4	0.5
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°	747.4	47.6
0°-40°	1077.1	68.6
0°-60°	1435.0	91.4
0°-90°	1570.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1570.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1082	
5°	1072	101
15°	987	277
25°	810	369
35°	530	330
45°	276	217
55°	156	141
65°	88	88
75°	37	40
85°	5	7
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1082.5
2.5°	1080.4
5°	1072.2
7.5°	1058.8
10°	1040.3
12.5°	1016.7
15°	986.9
17.5°	951.9
20°	910.8
22.5°	862.5
25°	810.1
27.5°	749.4
30°	682.6
32.5°	608.6
35°	530.4
37.5°	451.3
40°	383.4
42.5°	325.9
45°	276.5
47.5°	235.4
50°	203.5
52.5°	177.8
55°	156.3
57.5°	135.7
60°	118.2
62.5°	102.8
65°	88.4
67.5°	74.0
70°	61.7
72.5°	49.3
75°	37.0
77.5°	26.7
80°	17.5
82.5°	10.3
85°	5.1
87.5°	3.1
90°	0.0

(END OF REPORT)