

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: P345337

Luminaire Tested: **PR4FS12D010 PR4M12WD9FSMMS 2000Lm3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345337  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1908-453-5)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PR4FS12D010 PR4M12WD9FSMMS 2000Lm3000K  
Description: PR4 WIDE 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: 1593.1 lumens  
Efficiency: N/A  
Efficacy: 77.0 lumens/watt  
Spacing Criteria (0/90/45): 1.65 / 1.65 / 1.6  
Luminous Opening: Circular (Dia: 0.4' x H: 0')  
CIE Type: Direct

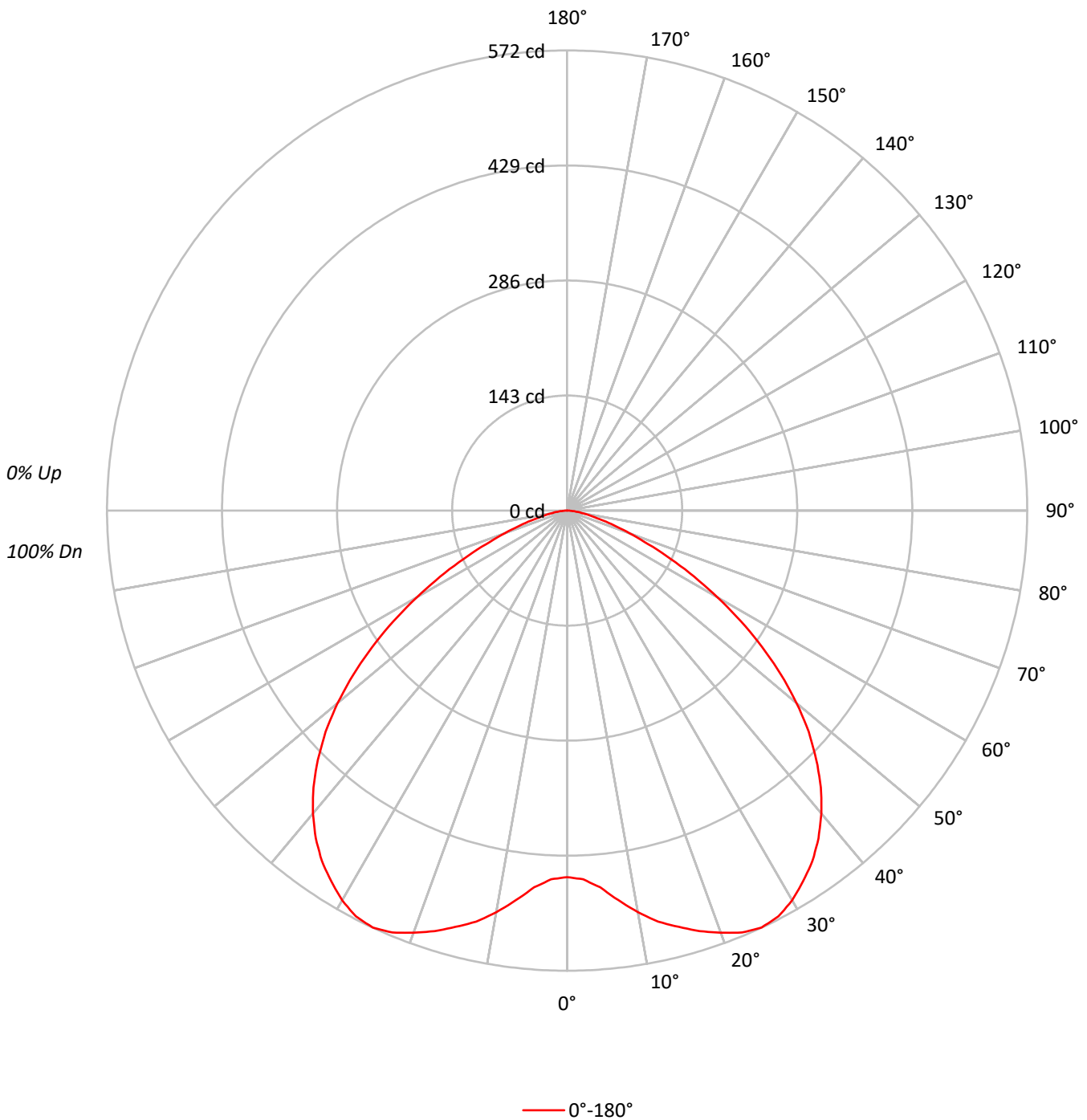
Input Watts (W): 20.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74
3	92	83	75	69	90	81	74	69	78	72	67	76	70	66	73	69	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	65	60	56	54
5	78	66	57	51	76	65	57	51	63	56	50	61	54	50	59	53	49	47
6	72	59	51	44	70	58	50	44	57	49	44	55	48	43	53	48	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	44	39	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

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

	0°
0°	39851
5°	41268
10°	45031
15°	48519
20°	51978
25°	55185
30°	56500
35°	56775
40°	56132
45°	54193
50°	50662
55°	45170
60°	37787
65°	29369
70°	21048
75°	14600
80°	10377
85°	7226



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.1	2.9
10°-20°	152.4	9.6
20°-30°	262.4	16.5
30°-40°	331.6	20.8
40°-50°	336.4	21.1
50°-60°	263.7	16.6
60°-70°	142.6	8.9
70°-80°	48.7	3.1
80°-90°	9.2	0.6
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°	460.9	28.9
0°-40°	792.4	49.7
0°-60°	1392.6	87.4
0°-90°	1593.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1593.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	456	
5°	470	46
15°	536	152
25°	572	262
35°	532	332
45°	438	336
55°	296	264
65°	142	143
75°	43	49
85°	7	9
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	455.6
2.5°	458.7
5°	470.0
7.5°	488.5
10°	507.0
12.5°	523.4
15°	535.8
17.5°	548.1
20°	558.4
22.5°	567.7
25°	571.8
27.5°	568.7
30°	559.4
32.5°	546.1
35°	531.7
37.5°	513.2
40°	491.6
42.5°	466.9
45°	438.1
47.5°	407.2
50°	372.3
52.5°	335.2
55°	296.2
57.5°	256.1
60°	216.0
62.5°	177.9
65°	141.9
67.5°	109.0
70°	82.3
72.5°	60.7
75°	43.2
77.5°	29.8
80°	20.6
82.5°	13.4
85°	7.2
87.5°	3.1
90°	0.0

(END OF REPORT)