

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: P345224

Luminaire Tested: **PR4FS12D010 PR4M12MD9FSMMS 1500Lm3500K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345224  
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 1500Lm3500K  
Description: PR4 MEDIUM LENS WITH, MATTE METALLIC SILVER FINISH  
Light Source: ARRAY OF HIGH LUMEN LEDs 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1036.4 lumens  
Efficiency: N/A  
Efficacy: 77.9 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

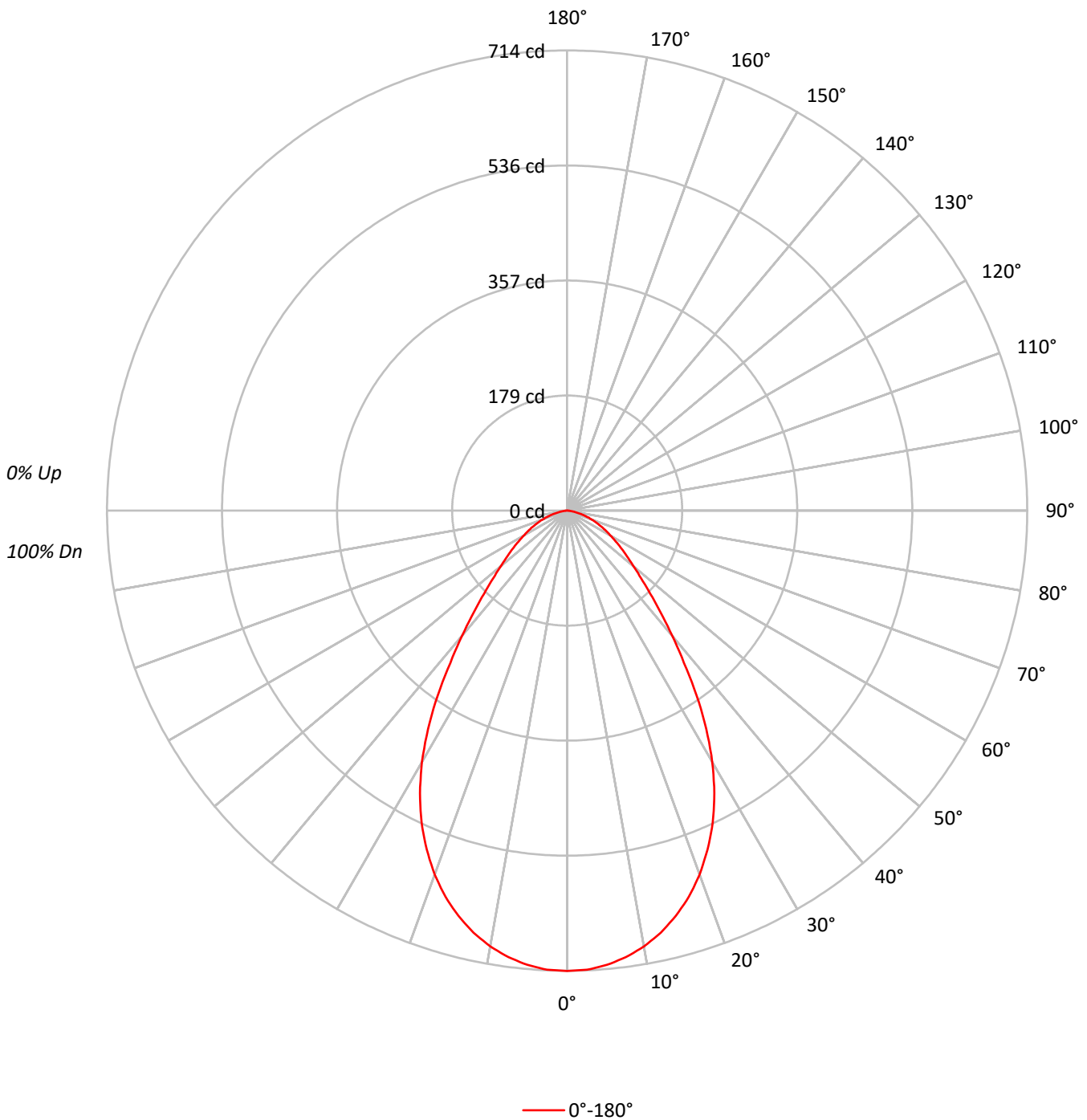
Input Watts (W): 13.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	62488
5°	62139
10°	60983
15°	58978
20°	55952
25°	51595
30°	45501
35°	37384
40°	28900
45°	22575
50°	18275
55°	15723
60°	13645
65°	12066
70°	10409
75°	8246
80°	5793
85°	3412



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.9	6.5
10°-20°	182.6	17.6
20°-30°	243.8	23.5
30°-40°	217.6	21.0
40°-50°	143.3	13.8
50°-60°	92.9	9.0
60°-70°	57.9	5.6
70°-80°	26.5	2.6
80°-90°	4.9	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°	493.3	47.6
0°-40°	710.9	68.6
0°-60°	947.1	91.4
0°-90°	1036.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1036.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	714	
5°	708	67
15°	651	183
25°	535	244
35°	350	218
45°	182	143
55°	103	93
65°	58	58
75°	24	27
85°	3	5
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	714.4
2.5°	713.1
5°	707.7
7.5°	698.8
10°	686.6
12.5°	671.0
15°	651.3
17.5°	628.3
20°	601.1
22.5°	569.2
25°	534.6
27.5°	494.6
30°	450.5
32.5°	401.7
35°	350.1
37.5°	297.9
40°	253.1
42.5°	215.1
45°	182.5
47.5°	155.4
50°	134.3
52.5°	117.4
55°	103.1
57.5°	89.6
60°	78.0
62.5°	67.8
65°	58.3
67.5°	48.9
70°	40.7
72.5°	32.6
75°	24.4
77.5°	17.6
80°	11.5
82.5°	6.8
85°	3.4
87.5°	2.0
90°	0.0

(END OF REPORT)