

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: P345223

Luminaire Tested: **PR4FS12D010 PR4M12MD9FSMMS 1500Lm3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345223  
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 1500Lm3000K  
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: 969.0 lumens  
Efficiency: N/A  
Efficacy: 69.7 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

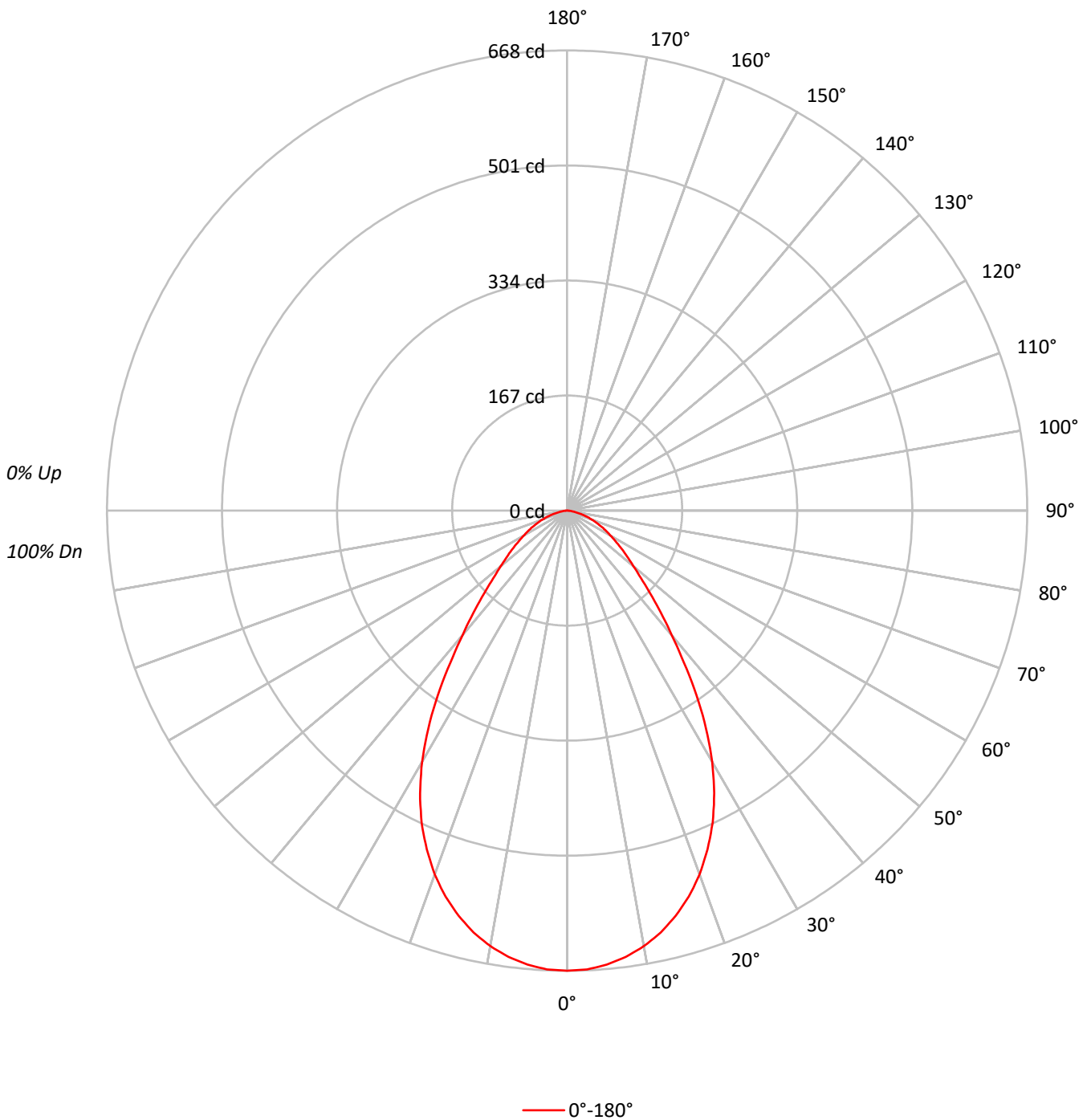
Input Watts (W): 13.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	58430
5°	58091
10°	57013
15°	55148
20°	52313
25°	48246
30°	42542
35°	34949
40°	27016
45°	21103
50°	17091
55°	14701
60°	12753
65°	11301
70°	9744
75°	7705
80°	5440
85°	3212



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.5	6.5
10°-20°	170.8	17.6
20°-30°	227.9	23.5
30°-40°	203.5	21.0
40°-50°	134.0	13.8
50°-60°	86.8	9.0
60°-70°	54.2	5.6
70°-80°	24.8	2.6
80°-90°	4.6	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°	461.2	47.6
0°-40°	664.7	68.6
0°-60°	885.5	91.4
0°-90°	969.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	969.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	668	
5°	662	63
15°	609	171
25°	500	228
35°	327	203
45°	171	134
55°	96	87
65°	55	54
75°	23	25
85°	3	5
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	668.0
2.5°	666.7
5°	661.6
7.5°	653.4
10°	641.9
12.5°	627.4
15°	609.0
17.5°	587.4
20°	562.0
22.5°	532.2
25°	499.9
27.5°	462.4
30°	421.2
32.5°	375.5
35°	327.3
37.5°	278.5
40°	236.6
42.5°	201.1
45°	170.6
47.5°	145.3
50°	125.6
52.5°	109.7
55°	96.4
57.5°	83.7
60°	72.9
62.5°	63.4
65°	54.6
67.5°	45.7
70°	38.1
72.5°	30.4
75°	22.8
77.5°	16.5
80°	10.8
82.5°	6.3
85°	3.2
87.5°	1.9
90°	0.0

(END OF REPORT)