

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: P345249

Luminaire Tested: **PR4FS24D010 PR4M24MD9FSMMS 4000Lm4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345249  
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: PR4FS24D010 PR4M24MD9FSMMS 4000Lm4000K  
Description: PR4 MEDIUM LENS WITH, MATTE METALLIC SILVER FINISH  
Light Source: ARRAY OF HIGH LUMEN LEDs 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3002.6 lumens  
Efficiency: N/A  
Efficacy: 66.7 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

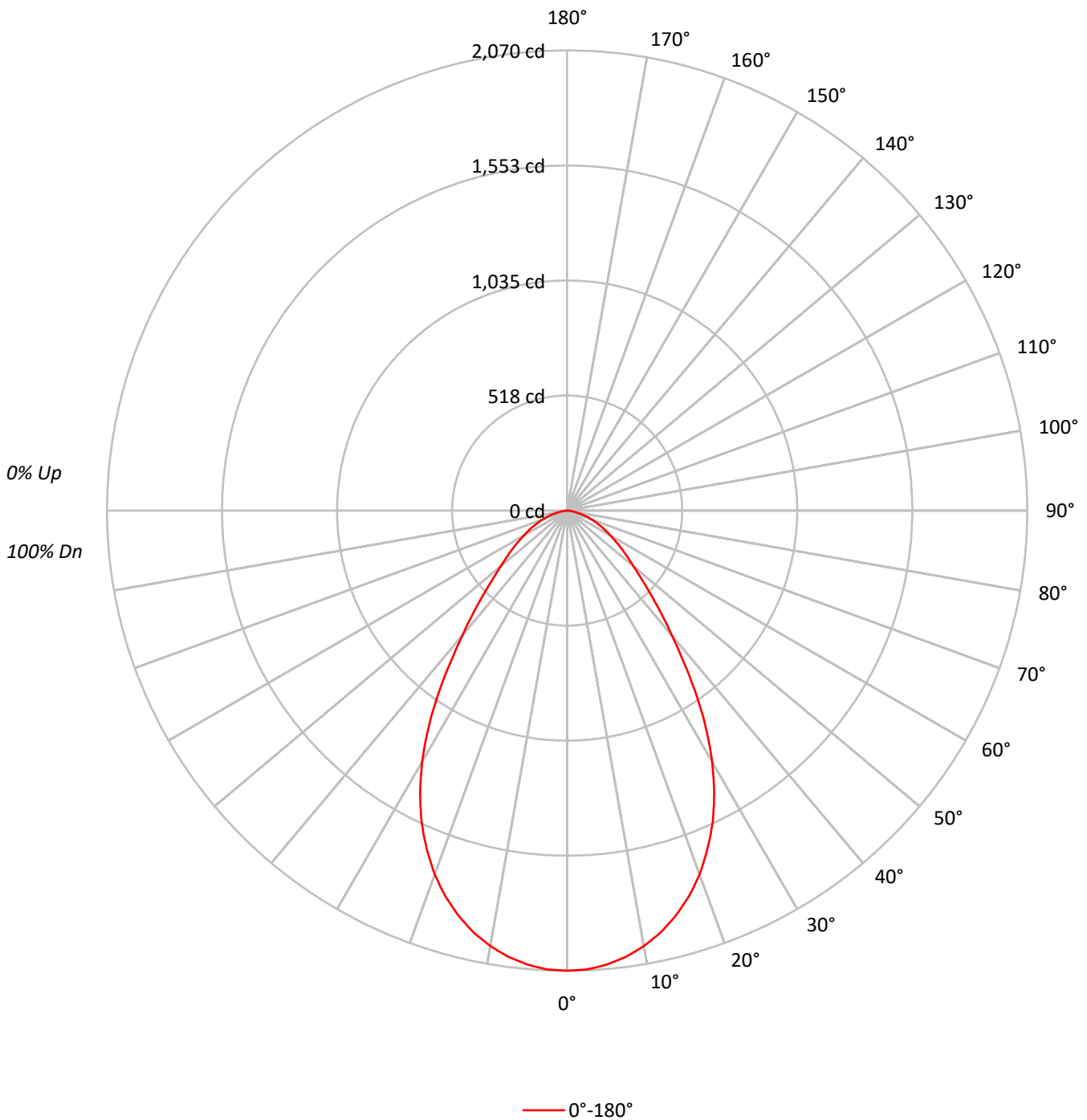
Input Watts (W): 45  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	181036
5°	180006
10°	176669
15°	170868
20°	162104
25°	149478
30°	131816
35°	108297
40°	83708
45°	65400
50°	52962
55°	45567
60°	39536
65°	34978
70°	30152
75°	23927
80°	16824
85°	9835



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.8	6.5
10°-20°	529.1	17.6
20°-30°	706.2	23.5
30°-40°	630.4	21.0
40°-50°	415.1	13.8
50°-60°	269.1	9.0
60°-70°	167.8	5.6
70°-80°	76.9	2.6
80°-90°	14.2	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°	1429.1	47.6
0°-40°	2059.5	68.6
0°-60°	2743.7	91.4
0°-90°	3002.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3002.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2070	
5°	2050	194
15°	1887	529
25°	1549	706
35°	1014	630
45°	529	415
55°	299	269
65°	169	168
75°	71	77
85°	10	14
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2069.7
2.5°	2065.8
5°	2050.1
7.5°	2024.5
10°	1989.1
12.5°	1943.9
15°	1886.9
17.5°	1820.1
20°	1741.5
22.5°	1649.1
25°	1548.8
27.5°	1432.9
30°	1305.1
32.5°	1163.6
35°	1014.2
37.5°	862.9
40°	733.1
42.5°	623.1
45°	528.7
47.5°	450.1
50°	389.2
52.5°	340.0
55°	298.8
57.5°	259.5
60°	226.0
62.5°	196.6
65°	169.0
67.5°	141.5
70°	117.9
72.5°	94.3
75°	70.8
77.5°	51.1
80°	33.4
82.5°	19.7
85°	9.8
87.5°	5.9
90°	0.0

(END OF REPORT)