

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: P345309

Luminaire Tested: **PR4FS24D010 PR4M24WD9FSMW 2000Lm4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345309  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1908-453-4)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PR4FS24D010 PR4M24WD9FSMW 2000Lm4000K  
Description: PR4 WIDE LENS WITH, MATTE WHITE FINISH  
Light Source: ARRAY OF HIGH LUMEN LEDs 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1776.8 lumens  
Efficiency: N/A  
Efficacy: 80.8 lumens/watt  
Spacing Criteria (0/90/45): 1.61 / 1.61 / 1.58  
Luminous Opening: Circular (Dia: 0.4' x H: 0')  
CIE Type: Direct

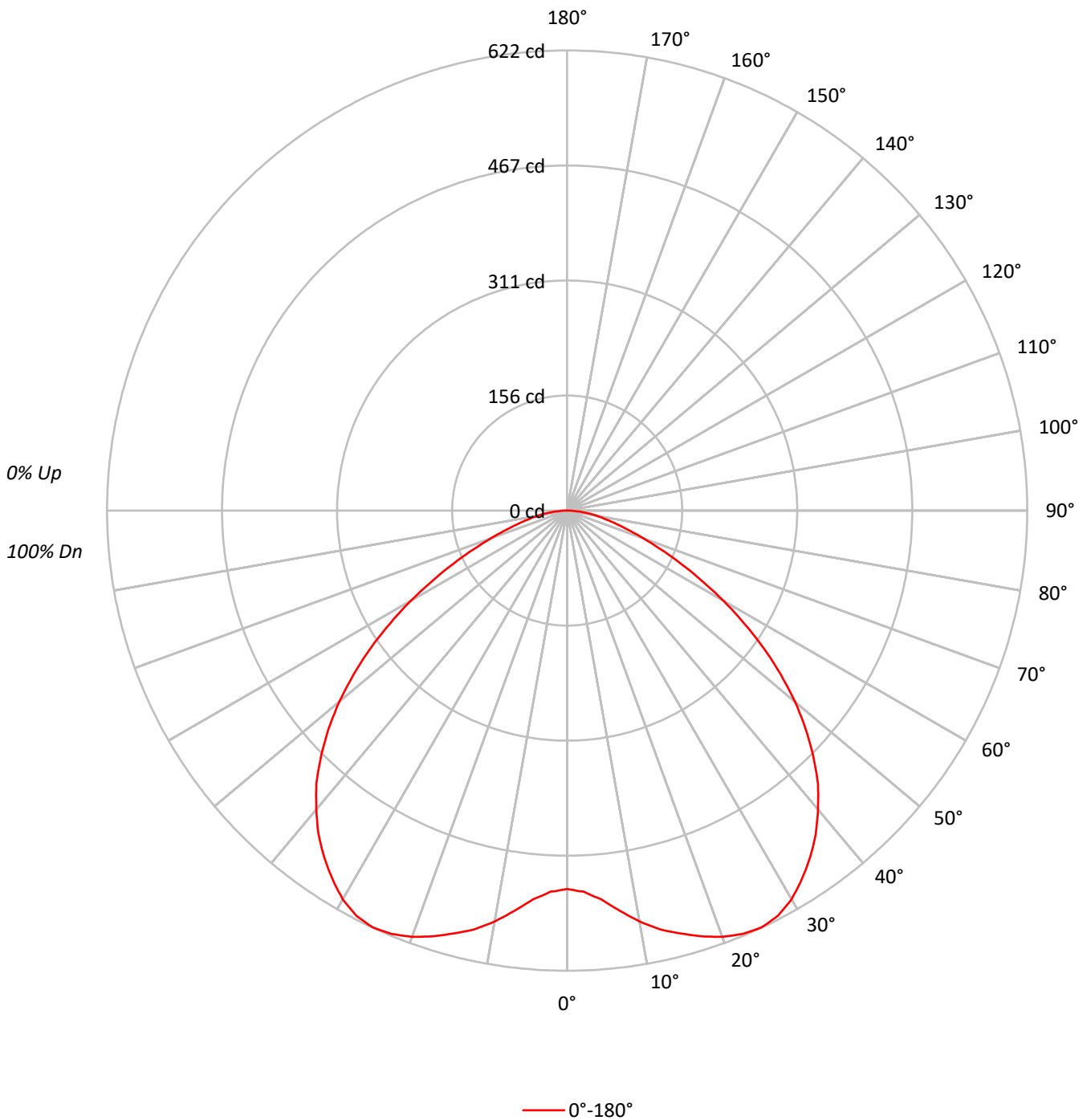
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53
5	77	65	56	50	75	64	56	50	62	55	49	60	54	49	58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	44	38	65	52	44	38	51	43	38	49	43	38	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	38	34	44	38	33	32
9	57	44	36	31	56	44	36	31	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25

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

	0°
0°	44741
5°	46316
10°	50085
15°	53581
20°	57069
25°	60001
30°	61277
35°	61121
40°	60232
45°	58238
50°	54744
55°	49440
60°	42685
65°	34999
70°	27902
75°	22778
80°	20501
85°	17162



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.6	2.9
10°-20°	168.2	9.5
20°-30°	285.6	16.1
30°-40°	357.5	20.1
40°-50°	361.7	20.4
50°-60°	289.0	16.3
60°-70°	169.6	9.5
70°-80°	73.9	4.2
80°-90°	19.8	1.1
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°	505.3	28.4
0°-40°	862.8	48.6
0°-60°	1513.5	85.2
0°-90°	1776.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1776.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	512	
5°	528	52
15°	592	168
25°	622	286
35°	572	357
45°	471	362
55°	324	289
65°	169	170
75°	67	74
85°	17	20
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	511.5
2.5°	515.7
5°	527.5
7.5°	545.7
10°	563.9
12.5°	579.9
15°	591.7
17.5°	603.5
20°	613.1
22.5°	619.5
25°	621.7
27.5°	617.4
30°	606.7
32.5°	590.6
35°	572.4
37.5°	552.1
40°	527.5
42.5°	501.8
45°	470.8
47.5°	437.6
50°	402.3
52.5°	363.8
55°	324.2
57.5°	283.5
60°	244.0
62.5°	204.4
65°	169.1
67.5°	137.0
70°	109.1
72.5°	85.6
75°	67.4
77.5°	52.4
80°	40.7
82.5°	28.9
85°	17.1
87.5°	6.4
90°	0.0

(END OF REPORT)