

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: P345302

Luminaire Tested: **PR4FS12D010 PR4M12WD9FSMW 2000Lm3500K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P345302  
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: PR4FS12D010 PR4M12WD9FSMW 2000Lm3500K  
Description: PR4 WIDE LENS WITH, MATTE WHITE FINISH  
Light Source: ARRAY OF HIGH LUMEN LEDs 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1826.0 lumens  
Efficiency: N/A  
Efficacy: 92.2 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

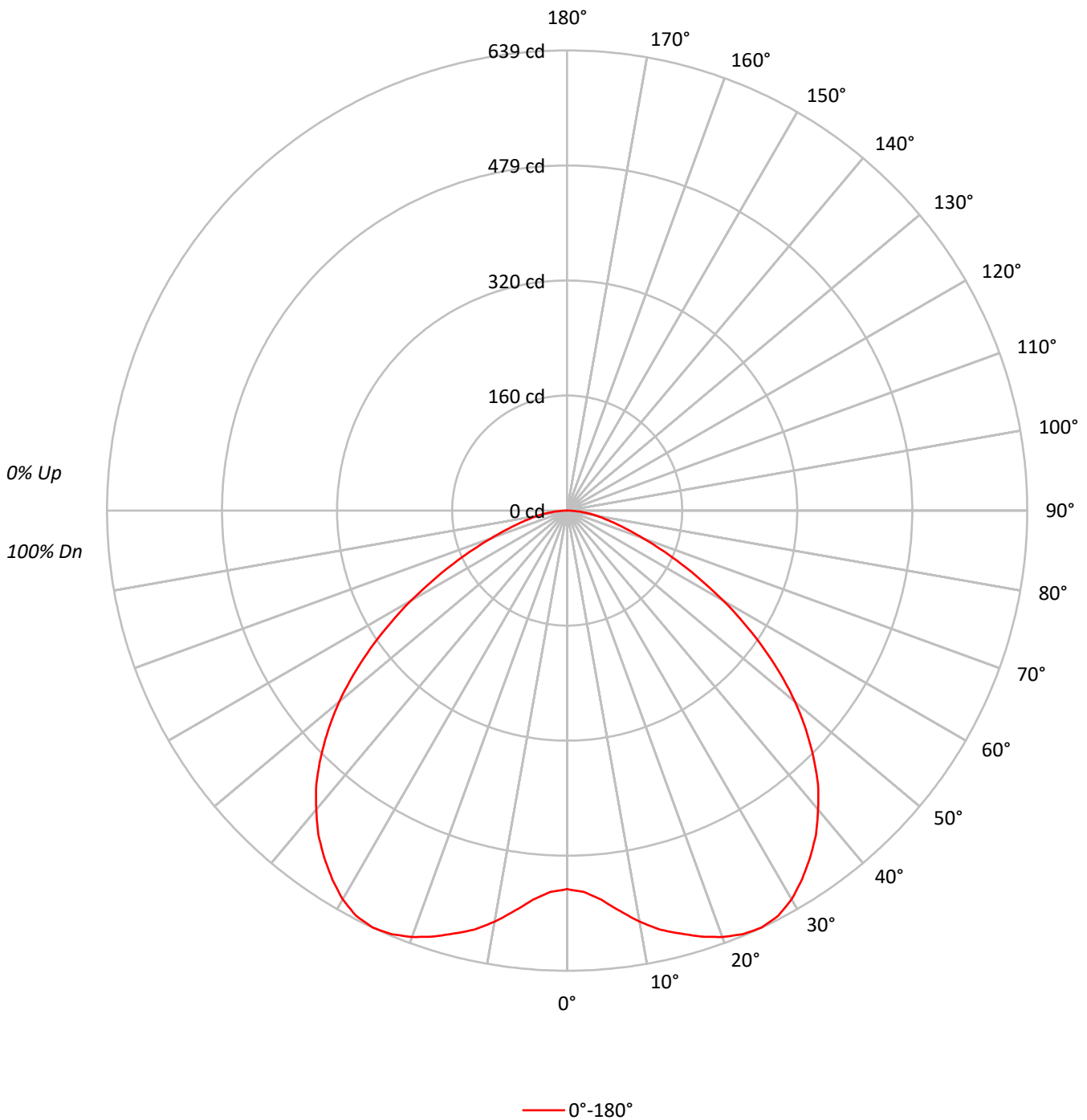
Input Watts (W): 19.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	45974
5°	47598
10°	51470
15°	55067
20°	58652
25°	61661
30°	62974
35°	62819
40°	61899
45°	59846
50°	56255
55°	50812
60°	43857
65°	35951
70°	28694
75°	23420
80°	21055
85°	17663



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.0	2.9
10°-20°	172.9	9.5
20°-30°	293.5	16.1
30°-40°	367.4	20.1
40°-50°	371.7	20.4
50°-60°	297.0	16.3
60°-70°	174.3	9.5
70°-80°	76.0	4.2
80°-90°	20.3	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°	519.3	28.4
0°-40°	886.7	48.6
0°-60°	1555.5	85.2
0°-90°	1826.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1826.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	526	
5°	542	53
15°	608	173
25°	639	293
35°	588	367
45°	484	372
55°	333	297
65°	174	174
75°	69	76
85°	18	20
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	525.6
2.5°	530.0
5°	542.1
7.5°	560.8
10°	579.5
12.5°	596.0
15°	608.1
17.5°	620.2
20°	630.1
22.5°	636.7
25°	638.9
27.5°	634.5
30°	623.5
32.5°	607.0
35°	588.3
37.5°	567.4
40°	542.1
42.5°	515.7
45°	483.8
47.5°	449.7
50°	413.4
52.5°	373.9
55°	333.2
57.5°	291.4
60°	250.7
62.5°	210.0
65°	173.7
67.5°	140.7
70°	112.2
72.5°	88.0
75°	69.3
77.5°	53.9
80°	41.8
82.5°	29.7
85°	17.6
87.5°	6.6
90°	0.0

(END OF REPORT)