

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: P241814

Luminaire Tested: **PRS415D010-S4M12-41SNDMB-3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241814  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-49)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-41SNDMB-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 806.2 lumens  
Efficiency: N/A  
Efficacy: 67.2 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.89  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

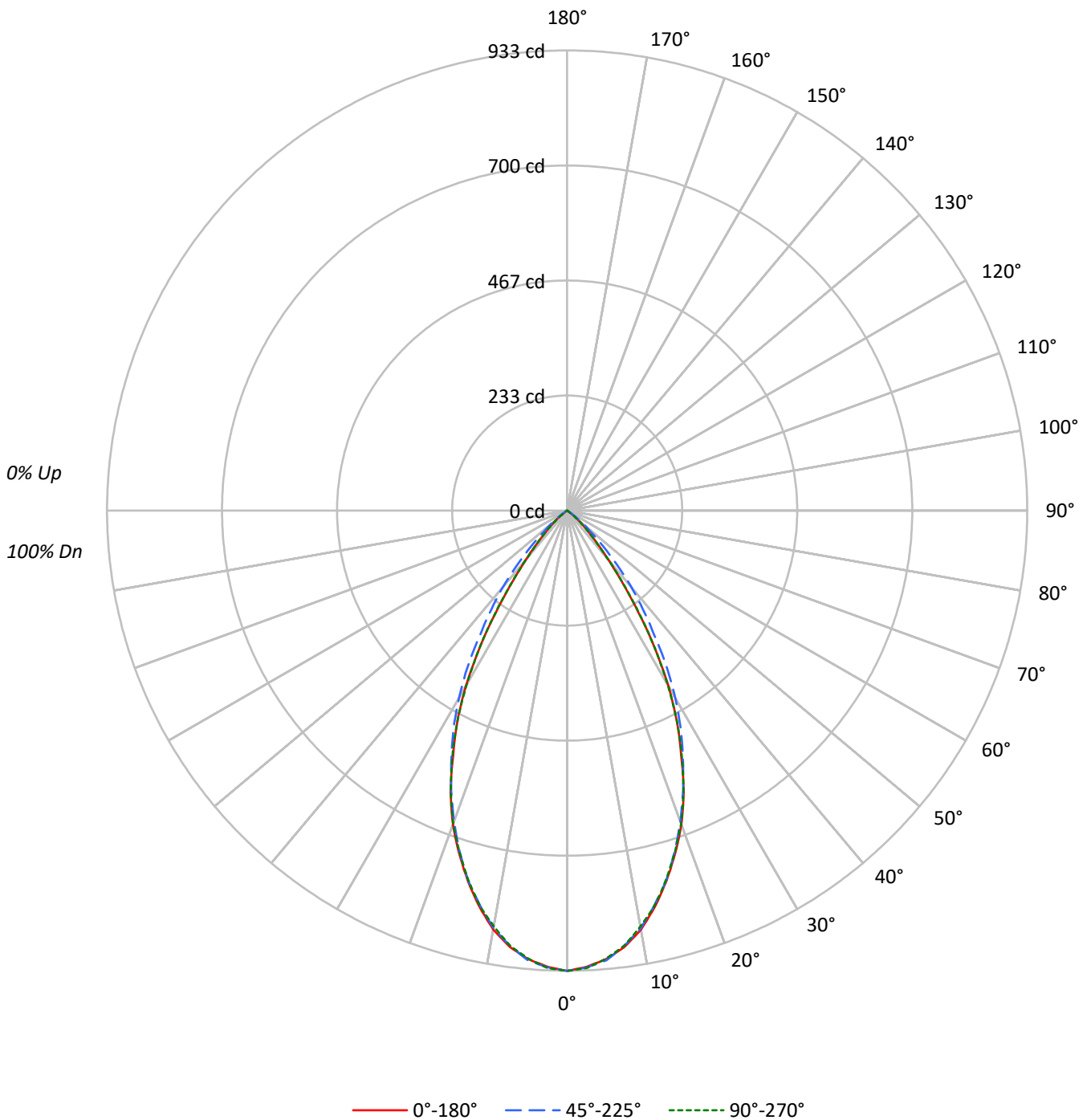
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93
2	108	103	99	95	106	101	98	94	98	95	92	95	93	90	92	90	88	87
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	81
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70
6	87	78	72	68	86	78	72	68	76	71	67	75	70	67	73	69	66	65
7	83	74	67	63	82	73	67	63	72	66	63	70	66	62	69	65	62	61
8	79	69	63	59	78	69	63	59	67	62	59	66	62	58	65	61	58	57
9	75	65	59	55	74	65	59	55	64	59	55	63	58	55	62	58	55	53
10	71	62	56	52	70	61	56	52	60	55	52	60	55	51	59	54	51	50

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

	0°	45°	90°
0°	71438	71438	71438
5°	70128	70320	70028
10°	67037	66835	66532
15°	61612	61509	61406
20°	55154	54632	55048
25°	46206	46856	46527
30°	36291	38686	36070
35°	23575	28752	23818
40°	12990	20194	12730
45°	6408	11431	6690
50°	2917	5061	2917
55°	173	1895	173
60°	0	398	199
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.4	10.6
10°-20°	216.3	26.8
20°-30°	252.0	31.3
30°-40°	176.1	21.8
40°-50°	65.9	8.2
50°-60°	10.4	1.3
60°-70°	0.2	0.0
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	553.7	68.7
0°-40°	729.8	90.5
0°-60°	806.0	100.0
0°-90°	806.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	806.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	933	933	933	933	933	
5°	913	914	915	911	911	86
15°	778	778	776	776	775	217
25°	547	555	555	556	551	250
35°	252	281	308	282	255	159
45°	59	77	106	77	62	50
55°	1	8	14	9	1	6
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	933.3	933.3	933.3	933.3	933.3
2.5°	925.5	925.5	926.8	926.8	928.1
5°	912.7	913.9	915.2	911.4	911.4
7.5°	892.1	890.8	889.5	889.5	889.5
10°	862.5	861.2	859.9	857.3	856.0
12.5°	822.6	821.3	818.7	820.0	820.0
15°	777.5	777.5	776.2	776.2	774.9
17.5°	728.6	727.3	724.7	726.0	726.0
20°	677.1	674.5	670.7	671.9	675.8
22.5°	617.9	619.2	614.0	616.6	616.6
25°	547.1	554.8	554.8	556.1	550.9
27.5°	482.7	487.9	499.5	486.6	482.7
30°	410.6	420.9	437.7	419.6	408.1
32.5°	330.8	351.4	375.9	352.7	330.8
35°	252.3	280.6	307.7	281.9	254.9
37.5°	181.5	213.7	252.3	216.3	184.1
40°	130.0	158.3	202.1	158.3	127.4
42.5°	88.8	110.7	150.6	112.0	88.8
45°	59.2	77.2	105.6	77.2	61.8
47.5°	39.9	52.8	68.2	52.8	39.9
50°	24.5	34.8	42.5	34.8	24.5
52.5°	11.6	19.3	24.5	19.3	11.6
55°	1.3	7.7	14.2	9.0	1.3
57.5°	1.3	1.3	7.7	1.3	1.3
60°	0.0	1.3	2.6	1.3	1.3
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)