

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: P241864

Luminaire Tested: **PRS415D010-S4M12-41SNDMW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241864  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-52)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-41SNDMW  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM MATTE WHITE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1125.8 lumens  
Efficiency: N/A  
Efficacy: 93.8 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 0.89 / 0.93  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

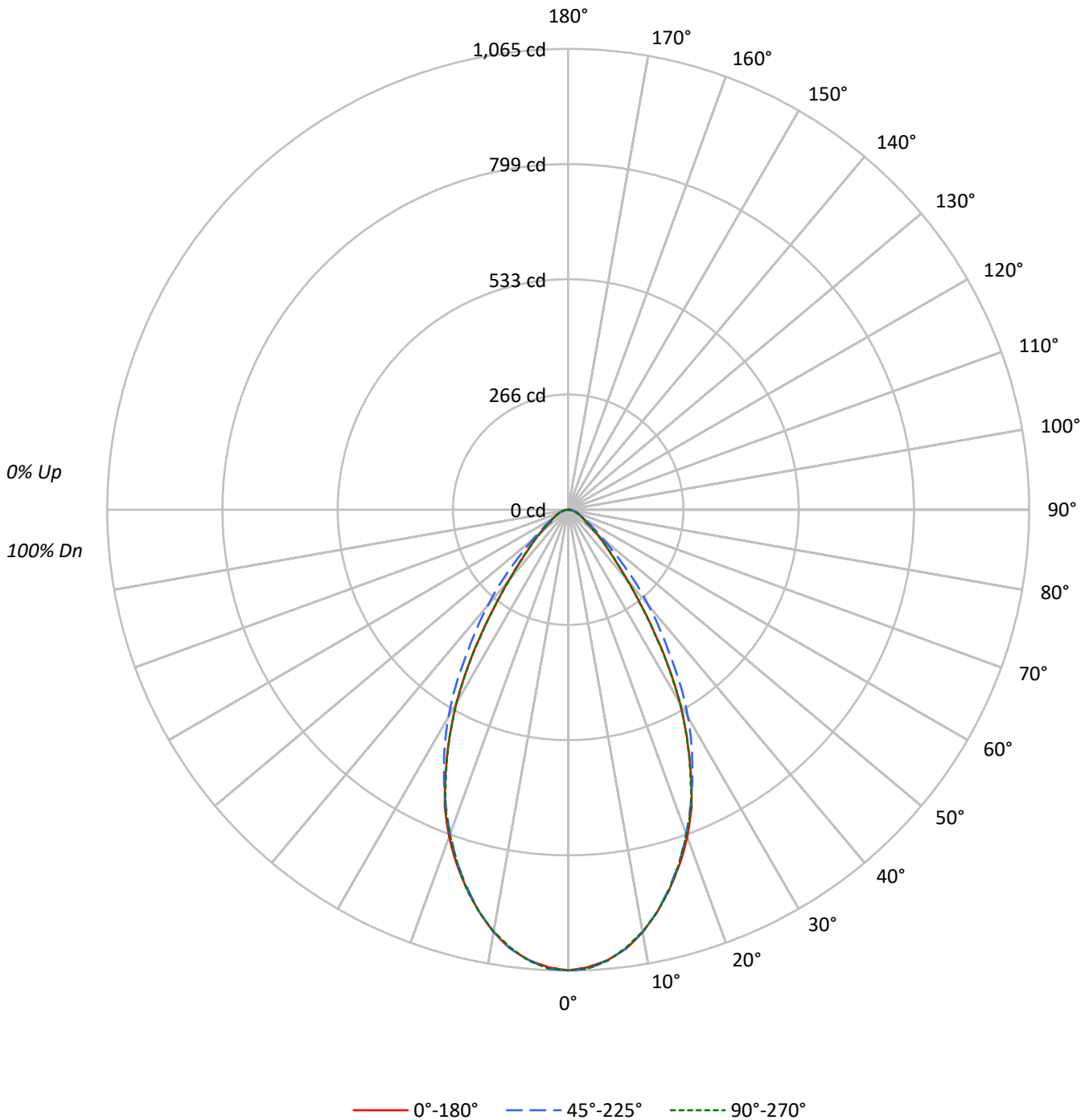
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91					91			
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85	83					83			
3	99	92	86	82	97	91	85	81	88	83	80	85	82	78	83	80	77	75					75			
4	94	85	79	74	92	84	78	73	81	76	72	79	75	71	77	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	66	72	68	65	63					63			
6	83	73	66	61	82	72	66	61	71	65	61	69	64	60	68	63	60	58					58			
7	79	68	61	57	77	67	61	57	66	60	56	65	60	56	64	59	56	54					54			
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50					50			
9	70	60	53	49	69	59	53	49	58	53	49	57	52	48	56	52	48	47					47			
10	67	56	50	46	66	56	50	46	55	49	45	54	49	45	53	49	45	44					44			

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

	0°	45°	90°
0°	81503	81503	81503
5°	80278	80278	80378
10°	77056	76955	76955
15°	71795	71581	71898
20°	65539	64888	65108
25°	56569	57363	56349
30°	45642	48939	45642
35°	32546	38274	32294
40°	21203	28927	20933
45°	14159	19496	14300
50°	10169	12396	10015
55°	6766	8728	6766
60°	6123	6537	6123
65°	5560	5560	5560
70°	5080	5080	5080
75°	4347	4347	4347
80°	4099	4099	4099
85°	3513	3513	3513



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.1	8.7
10°-20°	252.8	22.5
20°-30°	307.4	27.3
30°-40°	237.9	21.1
40°-50°	122.5	10.9
50°-60°	55.5	4.9
60°-70°	30.8	2.7
70°-80°	16.2	1.4
80°-90°	4.7	0.4
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°	658.3	58.5
0°-40°	896.2	79.6
0°-60°	1074.2	95.4
0°-90°	1125.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1125.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1045	1047	1045	1046	1046	98
15°	906	906	903	905	907	253
25°	670	678	679	676	667	305
35°	348	383	410	382	346	219
45°	131	151	180	151	132	106
55°	51	59	65	59	51	50
65°	31	31	31	31	31	30
75°	15	15	15	15	15	16
85°	4	4	4	4	4	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1064.8	1064.8	1064.8	1064.8	1064.8
2.5°	1058.1	1059.5	1062.1	1060.8	1060.8
5°	1044.8	1047.4	1044.8	1046.1	1046.1
7.5°	1023.4	1023.4	1023.4	1020.8	1020.8
10°	991.4	990.1	990.1	990.1	990.1
12.5°	951.4	952.7	951.4	952.7	951.4
15°	906.0	906.0	903.3	904.7	907.3
17.5°	858.0	856.6	854.0	852.6	854.0
20°	804.6	800.6	796.6	799.3	799.3
22.5°	744.6	743.2	739.2	740.6	741.9
25°	669.8	677.8	679.2	676.5	667.2
27.5°	593.8	603.1	617.8	603.1	593.8
30°	516.4	531.1	553.7	531.1	516.4
32.5°	432.3	459.0	484.4	460.3	431.0
35°	348.3	383.0	409.6	381.6	345.6
37.5°	273.5	306.9	346.9	308.2	272.2
40°	212.2	242.8	289.5	242.8	209.5
42.5°	165.5	192.1	233.5	190.8	165.5
45°	130.8	150.8	180.1	150.8	132.1
47.5°	106.7	121.4	136.1	121.4	106.7
50°	85.4	96.1	104.1	96.1	84.1
52.5°	66.7	76.1	81.4	76.1	66.7
55°	50.7	58.7	65.4	58.7	50.7
57.5°	45.4	46.7	53.4	46.7	45.4
60°	40.0	40.0	42.7	40.0	40.0
62.5°	34.7	36.0	36.0	36.0	34.7
65°	30.7	30.7	30.7	30.7	30.7
67.5°	25.4	26.7	26.7	26.7	25.4
70°	22.7	22.7	22.7	22.7	22.7
72.5°	18.7	18.7	18.7	18.7	18.7
75°	14.7	14.7	14.7	14.7	14.7
77.5°	12.0	12.0	12.0	12.0	12.0
80°	9.3	9.3	9.3	9.3	9.3
82.5°	6.7	6.7	6.7	6.7	6.7
85°	4.0	4.0	4.0	4.0	4.0
87.5°	1.3	1.3	1.3	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)