

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: P241698

Luminaire Tested: **PRS410D010-S4M12-44SMDMW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241698  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-41)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS410D010-S4M12-44SMDMW  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, SHALLOW 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: 1048.0 lumens  
Efficiency: N/A  
Efficacy: 104.8 lumens/watt  
Spacing Criteria (0/90/45): 1.01 / 1.01 / 1.08  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

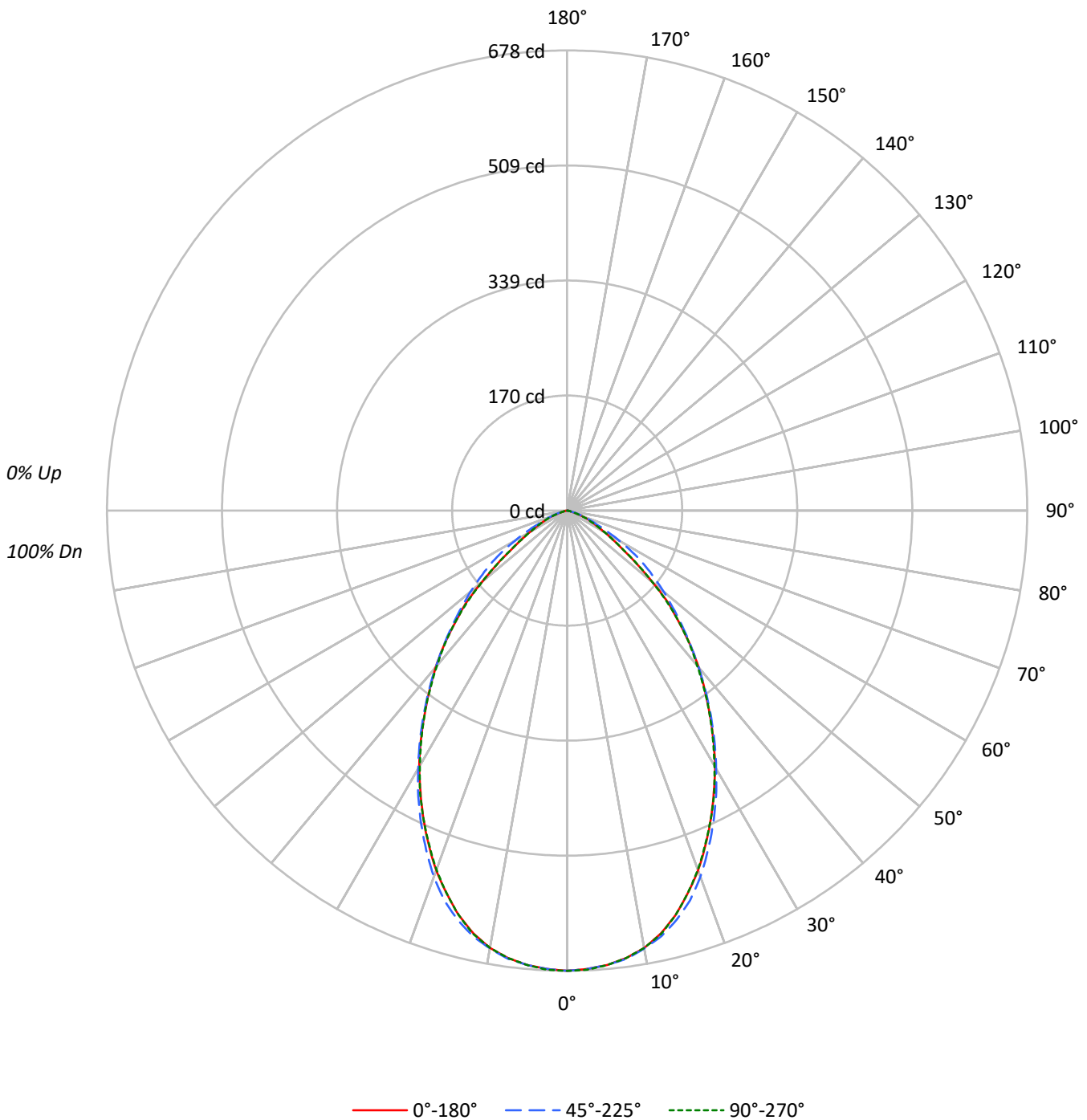
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92					90				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82					80				
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73					71				
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65					63				
5	84	74	66	61	82	73	66	60	71	65	60	69	64	59	67	62	59					57				
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53					51				
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48					47				
8	69	57	50	45	68	57	50	45	56	49	45	54	49	45	53	48	44					43				
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41					39				
10	61	50	43	38	60	49	43	38	48	42	38	47	42	38	47	41	38					36				

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

	0°	45°	90°
0°	51904	51904	51904
5°	51641	51641	51641
10°	50839	50917	50839
15°	48901	49456	48901
20°	45949	46764	45868
25°	42313	42988	42313
30°	38536	38801	38359
35°	34200	34480	34200
40°	30076	30076	29776
45°	25222	25871	25330
50°	19529	22030	19529
55°	13478	18416	13612
60°	9644	13625	9644
65°	7245	8694	7064
70°	4700	5595	4924
75°	1774	2957	1774
80°	1322	1763	1322
85°	878	878	878



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.6	6.1
10°-20°	173.7	16.6
20°-30°	232.1	22.1
30°-40°	230.4	22.0
40°-50°	183.3	17.5
50°-60°	107.1	10.2
60°-70°	45.1	4.3
70°-80°	11.1	1.1
80°-90°	1.6	0.2
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°	469.4	44.8
0°-40°	699.8	66.8
0°-60°	990.2	94.5
0°-90°	1048.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1048.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	678	678	678	678	678	
5°	672	672	672	672	672	64
15°	617	621	624	621	617	173
25°	501	508	509	507	501	230
35°	366	372	369	370	366	229
45°	233	239	239	239	234	180
55°	101	115	138	115	102	94
65°	40	44	48	44	39	40
75°	6	7	10	8	6	9
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	678.1	678.1	678.1	678.1	678.1
2.5°	676.1	676.1	676.1	676.1	677.1
5°	672.1	672.1	672.1	672.1	672.1
7.5°	665.1	665.1	666.1	666.1	665.1
10°	654.1	654.1	655.1	655.1	654.1
12.5°	638.1	640.1	642.1	640.1	639.1
15°	617.1	621.1	624.1	621.1	617.1
17.5°	591.1	596.1	602.1	596.1	591.1
20°	564.1	569.1	574.1	568.1	563.1
22.5°	533.1	539.1	542.1	538.1	532.1
25°	501.0	508.0	509.0	507.0	501.0
27.5°	468.0	473.0	475.0	474.0	469.0
30°	436.0	441.0	439.0	440.0	434.0
32.5°	401.0	406.0	404.0	404.0	400.0
35°	366.0	372.0	369.0	370.0	366.0
37.5°	333.0	336.0	335.0	336.0	332.0
40°	301.0	303.0	301.0	303.0	298.0
42.5°	268.0	271.0	269.0	271.0	267.0
45°	233.0	239.0	239.0	239.0	234.0
47.5°	203.0	208.0	211.0	208.0	200.0
50°	164.0	179.0	185.0	178.0	164.0
52.5°	130.0	145.0	161.0	145.0	131.0
55°	101.0	115.0	138.0	115.0	102.0
57.5°	80.0	90.0	114.0	90.0	80.0
60°	63.0	71.0	89.0	71.0	63.0
62.5°	50.0	56.0	66.0	56.0	50.0
65°	40.0	44.0	48.0	44.0	39.0
67.5°	31.0	34.0	35.0	34.0	30.0
70°	21.0	25.0	25.0	25.0	22.0
72.5°	13.0	16.0	17.0	16.0	13.0
75°	6.0	7.0	10.0	8.0	6.0
77.5°	5.0	5.0	5.0	5.0	5.0
80°	3.0	4.0	4.0	4.0	3.0
82.5°	2.0	2.0	2.0	2.0	2.0
85°	1.0	1.0	1.0	1.0	1.0
87.5°	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)