

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: P241699

Luminaire Tested: **PRS415D010-S4M12-44SMDMW**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241699  
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: PRS415D010-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: 1397.9 lumens  
Efficiency: N/A  
Efficacy: 116.5 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

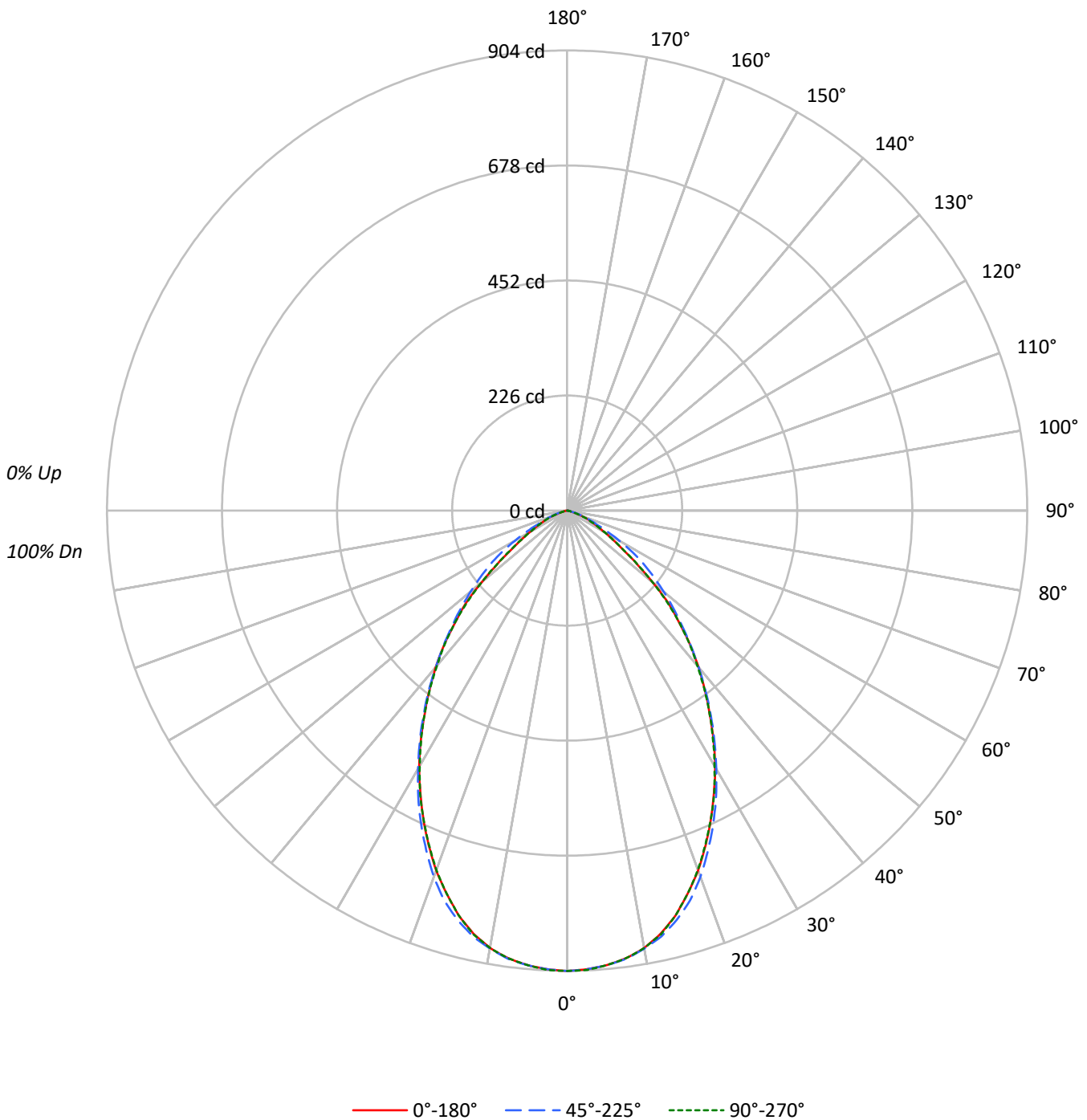
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P241699

CATALOG NUMBER: PRS415D010-S4M12-44SMDMW

### Luminous Intensity Polar Plot





TEST NUMBER: P241699

CATALOG NUMBER: PRS415D010-S4M12-44SMDMW

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

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

	0°	45°	90°
0°	69234	69234	69234
5°	68883	68883	68883
10°	67814	67915	67814
15°	65225	65962	65225
20°	61287	62371	61181
25°	56451	57346	56451
30°	51405	51758	51175
35°	45628	46002	45628
40°	40118	40118	39718
45°	33644	34510	33795
50°	26055	29389	26055
55°	17976	24568	18162
60°	12859	18171	12859
65°	9672	11591	9418
70°	6266	7475	6557
75°	2366	3933	2366
80°	1763	2336	1763
85°	1142	1142	1142



TEST NUMBER: P241699

CATALOG NUMBER: PRS415D010-S4M12-44SMDMW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.9	6.1
10°-20°	231.7	16.6
20°-30°	309.5	22.1
30°-40°	307.4	22.0
40°-50°	244.5	17.5
50°-60°	142.8	10.2
60°-70°	60.2	4.3
70°-80°	14.8	1.1
80°-90°	2.1	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°	626.1	44.8
0°-40°	933.5	66.8
0°-60°	1320.8	94.5
0°-90°	1397.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1397.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	896	896	896	896	896	85
15°	823	828	832	828	823	230
25°	668	678	679	676	668	307
35°	488	496	492	494	488	305
45°	311	319	319	319	312	240
55°	135	153	184	153	136	126
65°	53	59	64	59	52	54
75°	8	9	13	11	8	13
85°	1	1	1	1	1	2
90°	0	0	0	0	0	



TEST NUMBER: P241699

CATALOG NUMBER: PRS415D010-S4M12-44SMDMW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	904.5	904.5	904.5	904.5	904.5
2.5°	901.8	901.8	901.8	901.8	903.1
5°	896.5	896.5	896.5	896.5	896.5
7.5°	887.1	887.1	888.5	888.5	887.1
10°	872.5	872.5	873.8	873.8	872.5
12.5°	851.1	853.8	856.5	853.8	852.4
15°	823.1	828.4	832.4	828.4	823.1
17.5°	788.4	795.1	803.1	795.1	788.4
20°	752.4	759.1	765.7	757.7	751.1
22.5°	711.0	719.0	723.0	717.7	709.7
25°	668.4	677.7	679.0	676.4	668.4
27.5°	624.3	631.0	633.7	632.3	625.7
30°	581.6	588.3	585.6	587.0	579.0
32.5°	534.9	541.6	539.0	539.0	533.6
35°	488.3	496.3	492.3	493.6	488.3
37.5°	444.2	448.2	446.9	448.2	442.9
40°	401.5	404.2	401.5	404.2	397.5
42.5°	357.5	361.5	358.9	361.5	356.2
45°	310.8	318.8	318.8	318.8	312.2
47.5°	270.8	277.5	281.5	277.5	266.8
50°	218.8	238.8	246.8	237.5	218.8
52.5°	173.4	193.4	214.8	193.4	174.8
55°	134.7	153.4	184.1	153.4	136.1
57.5°	106.7	120.1	152.1	120.1	106.7
60°	84.0	94.7	118.7	94.7	84.0
62.5°	66.7	74.7	88.0	74.7	66.7
65°	53.4	58.7	64.0	58.7	52.0
67.5°	41.4	45.4	46.7	45.4	40.0
70°	28.0	33.4	33.4	33.4	29.3
72.5°	17.3	21.3	22.7	21.3	17.3
75°	8.0	9.3	13.3	10.7	8.0
77.5°	6.7	6.7	6.7	6.7	6.7
80°	4.0	5.3	5.3	5.3	4.0
82.5°	2.7	2.7	2.7	2.7	2.7
85°	1.3	1.3	1.3	1.3	1.3
87.5°	1.3	1.3	1.3	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)