

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: P241839

Luminaire Tested: **PRS415D010-S4M12-41SMDMB-4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241839  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-50)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-41SMDMB-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 900.5 lumens  
Efficiency: N/A  
Efficacy: 75.0 lumens/watt  
Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.98  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

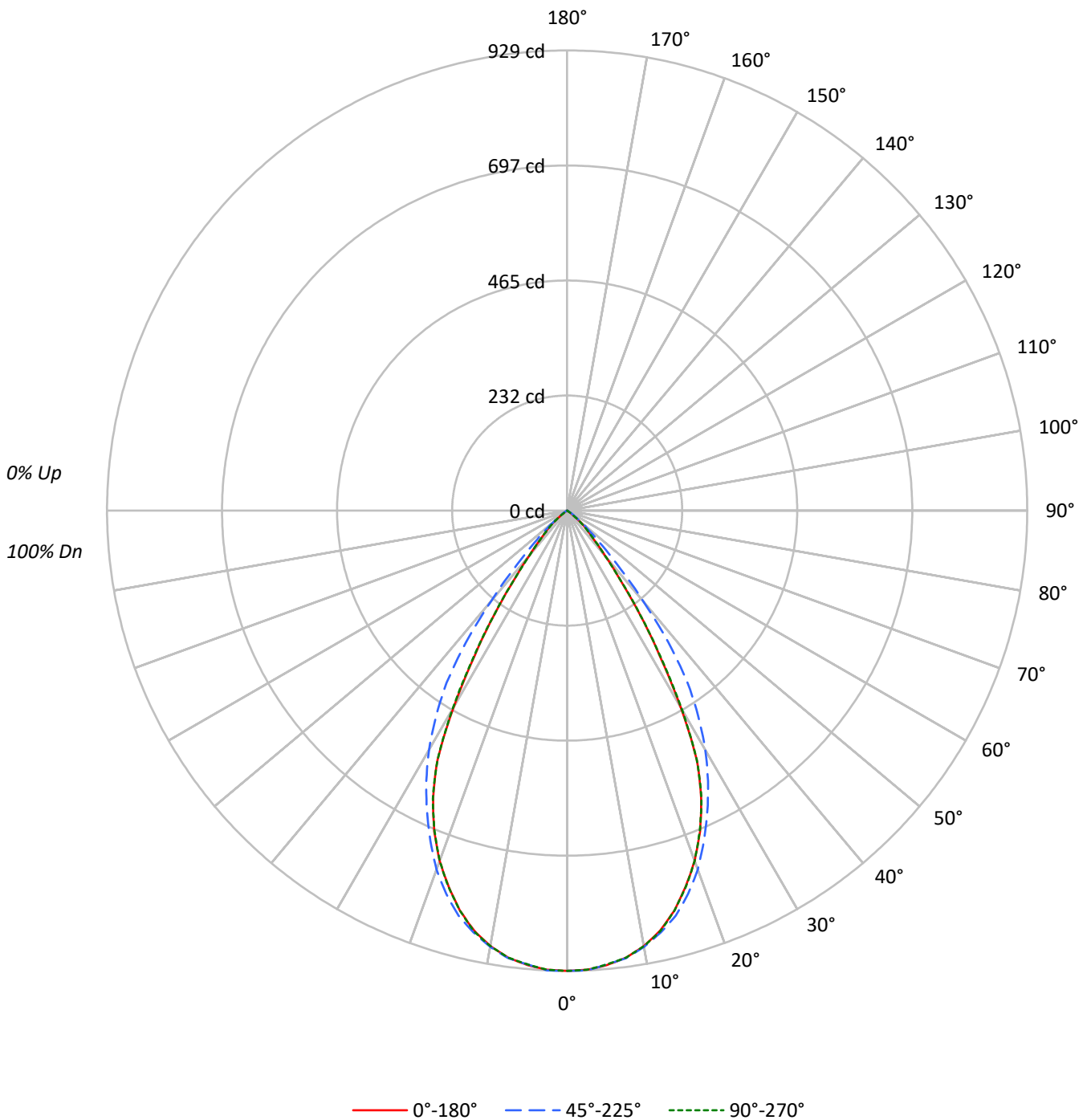
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P241839

CATALOG NUMBER: PRS415D010-S4M12-41SMDMB-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P241839

CATALOG NUMBER: PRS415D010-S4M12-41SMDMB-4000K

**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	113	111	108	106	111	109	106	104	104	103	101	101	99	98	97	96	95	93					93			
2	108	103	99	95	106	101	97	94	98	95	92	95	92	90	92	90	88	87					87			
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	80					80			
4	97	89	84	79	95	88	83	79	86	81	78	84	80	77	82	79	76	75					75			
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69					69			
6	87	78	72	68	86	77	72	67	76	71	67	74	70	66	73	69	66	65					65			
7	83	73	67	63	81	73	67	63	71	66	62	70	65	62	69	65	62	60					60			
8	78	69	63	59	77	68	62	58	67	62	58	66	61	58	65	61	58	56					56			
9	75	65	59	55	74	64	59	55	63	58	54	62	58	54	62	57	54	53					53			
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	49					49			

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

	0°	45°	90°
0°	71124	71124	71124
5°	70773	70666	70666
10°	69384	69493	69384
15°	66248	67103	66248
20°	61279	62819	61279
25°	54069	56577	54179
30°	40586	49301	40940
35°	23856	39629	23977
40°	11881	24021	11741
45°	6582	10814	6582
50°	3215	4501	3215
55°	187	1988	187
60°	214	413	214
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P241839

CATALOG NUMBER: PRS415D010-S4M12-41SMDMB-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.0	9.7
10°-20°	234.9	26.1
20°-30°	297.6	33.1
30°-40°	204.1	22.7
40°-50°	65.8	7.3
50°-60°	10.8	1.2
60°-70°	0.3	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°	619.6	68.8
0°-40°	823.7	91.5
0°-60°	900.2	100.0
0°-90°	900.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	900.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	921	922	920	922	920	87
15°	836	841	847	841	836	233
25°	640	659	670	658	642	287
35°	255	315	424	317	257	163
45°	61	76	100	74	61	50
55°	1	8	15	8	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	



TEST NUMBER: P241839

CATALOG NUMBER: PRS415D010-S4M12-41SMDMB-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	929.2	929.2	929.2	929.2	929.2
2.5°	927.8	927.8	929.2	927.8	927.8
5°	921.1	922.4	919.7	922.4	919.7
7.5°	910.3	908.9	911.6	908.9	910.3
10°	892.7	891.4	894.1	891.4	892.7
12.5°	868.4	869.8	872.5	871.1	869.8
15°	836.0	841.4	846.8	841.4	836.0
17.5°	795.5	802.2	811.7	802.2	796.8
20°	752.3	759.0	771.2	760.4	752.3
22.5°	701.0	714.5	721.2	713.1	699.6
25°	640.2	659.1	669.9	657.7	641.5
27.5°	567.2	597.0	615.9	597.0	567.2
30°	459.2	517.3	557.8	517.3	463.2
32.5°	348.4	416.0	493.0	413.3	352.5
35°	255.3	314.7	424.1	317.4	256.6
37.5°	174.2	226.9	334.9	224.2	175.6
40°	118.9	156.7	240.4	155.3	117.5
42.5°	83.7	106.7	159.4	106.7	82.4
45°	60.8	75.6	99.9	74.3	60.8
47.5°	44.6	55.4	62.1	54.0	43.2
50°	27.0	37.8	37.8	37.8	27.0
52.5°	12.2	21.6	23.0	21.6	12.2
55°	1.4	8.1	14.9	8.1	1.4
57.5°	1.4	1.4	8.1	1.4	1.4
60°	1.4	1.4	2.7	1.4	1.4
62.5°	0.0	0.0	1.4	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)