

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: P241824

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241824  
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-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW 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: 845.1 lumens  
Efficiency: N/A  
Efficacy: 70.4 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

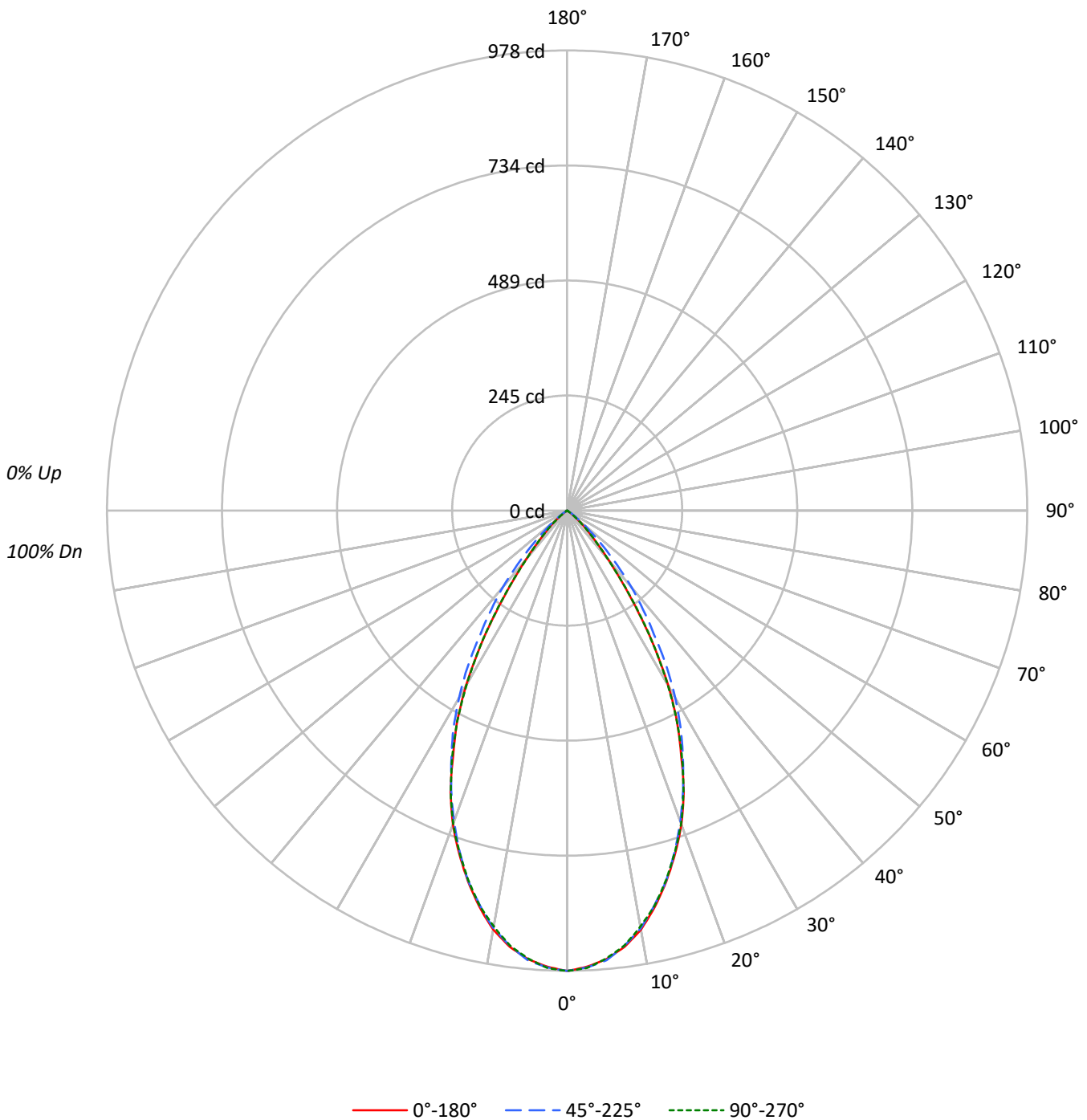
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P241824

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

### Luminous Intensity Polar Plot





TEST NUMBER: P241824

CATALOG NUMBER: PRS415D010-S4M12-41SNDMB-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	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°	74890	74890	74890
5°	73516	73724	73417
10°	70278	70068	69750
15°	64591	64488	64377
20°	57825	57272	57711
25°	48444	49120	48782
30°	38050	40551	37811
35°	24715	30135	24968
40°	13619	21173	13349
45°	6722	11983	7015
50°	3048	5299	3048
55°	173	1975	173
60°	0	413	199
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P241824

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

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.6	10.6
10°-20°	226.7	26.8
20°-30°	264.2	31.3
30°-40°	184.6	21.8
40°-50°	69.0	8.2
50°-60°	10.8	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°	580.5	68.7
0°-40°	765.1	90.5
0°-60°	844.9	100.0
0°-90°	845.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	845.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	978	978	978	978	978	
5°	957	958	960	956	956	90
15°	815	815	814	814	812	227
25°	574	582	582	583	578	262
35°	264	294	322	296	267	167
45°	62	81	111	81	65	53
55°	1	8	15	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	



TEST NUMBER: P241824

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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	978.4	978.4	978.4	978.4	978.4
2.5°	970.3	970.3	971.7	971.7	973.0
5°	956.8	958.2	959.5	955.5	955.5
7.5°	935.2	933.9	932.5	932.5	932.5
10°	904.2	902.8	901.5	898.8	897.4
12.5°	862.4	861.0	858.3	859.7	859.7
15°	815.1	815.1	813.8	813.8	812.4
17.5°	763.8	762.5	759.8	761.1	761.1
20°	709.9	707.2	703.1	704.5	708.5
22.5°	647.8	649.1	643.7	646.4	646.4
25°	573.6	581.6	581.6	583.0	577.6
27.5°	506.1	511.5	523.6	510.1	506.1
30°	430.5	441.3	458.8	439.9	427.8
32.5°	346.8	368.4	394.1	369.8	346.8
35°	264.5	294.2	322.5	295.5	267.2
37.5°	190.3	224.0	264.5	226.7	193.0
40°	136.3	166.0	211.9	166.0	133.6
42.5°	93.1	116.1	157.9	117.4	93.1
45°	62.1	81.0	110.7	81.0	64.8
47.5°	41.8	55.3	71.5	55.3	41.8
50°	25.6	36.4	44.5	36.4	25.6
52.5°	12.1	20.2	25.6	20.2	12.1
55°	1.3	8.1	14.8	9.4	1.3
57.5°	1.3	1.3	8.1	1.3	1.3
60°	0.0	1.3	2.7	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)