

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: P241964

Luminaire Tested: **PRS415D010-S4M12-41SMDC-3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241964  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-59)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-41SMDC-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM SPECULAR  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1210.5 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.82 / 0.85  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

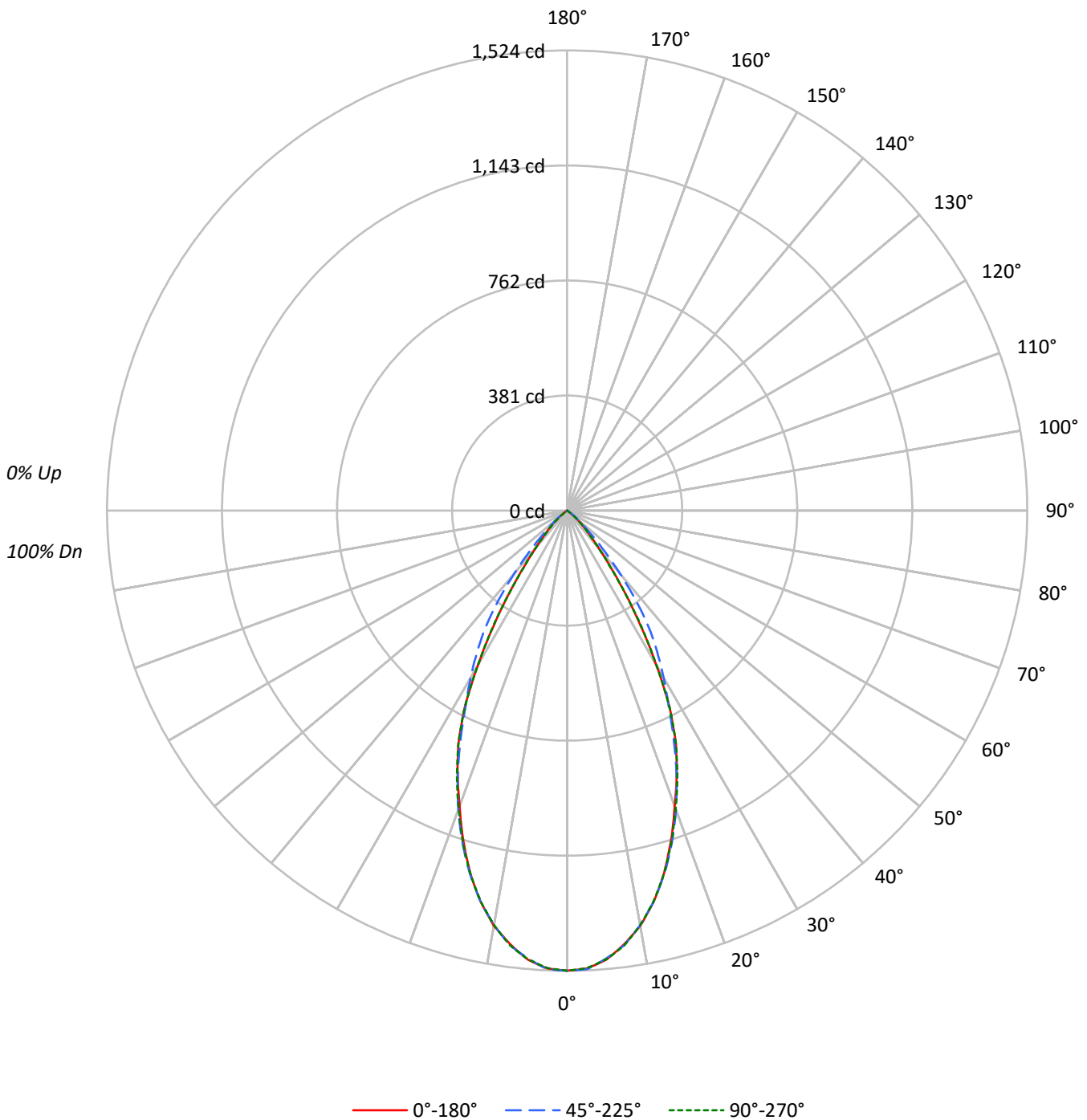
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P241964

CATALOG NUMBER: PRS415D010-S4M12-41SMDC-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P241964

CATALOG NUMBER: PRS415D010-S4M12-41SMDC-3000K

**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	100	100	100	100	100		
1	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94	94	94	94	94	94	94		
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87	87	87	87	87	87	87		
3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81	81	81	81	81	81	81		
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76	76	76	76	76	76	76		
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71	71	71	71	71	71	71		
6	88	79	73	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66	66	66	66	66	66	66		
7	84	75	69	65	83	74	68	64	73	68	64	72	67	64	70	66	63	62	62	62	62	62	62	62		
8	80	70	65	61	79	70	64	60	69	64	60	68	63	60	67	63	60	58	58	58	58	58	58	58		
9	76	67	61	57	75	66	61	57	65	60	57	64	60	56	63	59	56	55	55	55	55	55	55	55		
10	73	63	57	54	72	63	57	53	62	57	53	61	56	53	60	56	53	52	52	52	52	52	52	52		

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

	0°	45°	90°
0°	116652	116652	116652
5°	114724	114424	114624
10°	108550	108348	108348
15°	98428	98634	98428
20°	84820	85871	85553
25°	71965	70445	71965
30°	52333	56425	52218
35°	31387	43899	31275
40°	16337	27008	16207
45°	8920	12817	8638
50°	3989	5371	3834
55°	347	2229	173
60°	199	597	199
65°	0	235	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P241964

CATALOG NUMBER: PRS415D010-S4M12-41SMDC-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.3	11.5
10°-20°	345.0	28.5
20°-30°	384.6	31.8
30°-40°	247.6	20.5
40°-50°	80.7	6.7
50°-60°	12.6	1.0
60°-70°	0.6	0.1
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°	868.9	71.8
0°-40°	1116.5	92.2
0°-60°	1209.9	99.9
0°-90°	1210.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1210.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1524	1524	1524	1524	1524	
5°	1493	1493	1489	1494	1492	139
15°	1242	1242	1245	1245	1242	344
25°	852	851	834	851	852	382
35°	336	387	470	386	335	215
45°	82	94	118	91	80	67
55°	3	10	17	10	1	8
65°	0	0	1	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: P241964

CATALOG NUMBER: PRS415D010-S4M12-41SMDC-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1524.0	1524.0	1524.0	1524.0	1524.0
2.5°	1517.5	1518.8	1520.1	1518.8	1516.3
5°	1493.1	1493.1	1489.2	1494.4	1491.8
7.5°	1448.0	1449.3	1451.9	1449.3	1451.9
10°	1396.6	1394.0	1394.0	1394.0	1394.0
12.5°	1325.8	1324.5	1325.8	1324.5	1324.5
15°	1242.1	1242.1	1244.7	1244.7	1242.1
17.5°	1144.3	1146.8	1153.3	1152.0	1149.4
20°	1041.3	1046.4	1054.2	1047.7	1050.3
22.5°	948.6	943.5	946.1	943.5	953.8
25°	852.1	850.8	834.1	850.8	852.1
27.5°	733.7	751.7	727.2	753.0	733.7
30°	592.1	637.1	638.4	642.3	590.8
32.5°	454.4	507.1	554.8	509.7	459.5
35°	335.9	387.4	469.8	386.1	334.7
37.5°	234.3	280.6	372.0	279.3	231.7
40°	163.5	194.4	270.3	195.6	162.2
42.5°	114.6	135.2	184.1	131.3	113.3
45°	82.4	94.0	118.4	91.4	79.8
47.5°	56.6	65.6	73.4	64.4	55.3
50°	33.5	43.8	45.1	43.8	32.2
52.5°	15.4	24.5	28.3	24.5	15.4
55°	2.6	10.3	16.7	10.3	1.3
57.5°	1.3	1.3	9.0	1.3	1.3
60°	1.3	1.3	3.9	1.3	1.3
62.5°	1.3	1.3	1.3	1.3	1.3
65°	0.0	0.0	1.3	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)