

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: P241904

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241904  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-55)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-41SNDH-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1048.2 lumens  
Efficiency: N/A  
Efficacy: 87.4 lumens/watt  
Spacing Criteria (0/90/45): 0.87 / 0.87 / 0.91  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

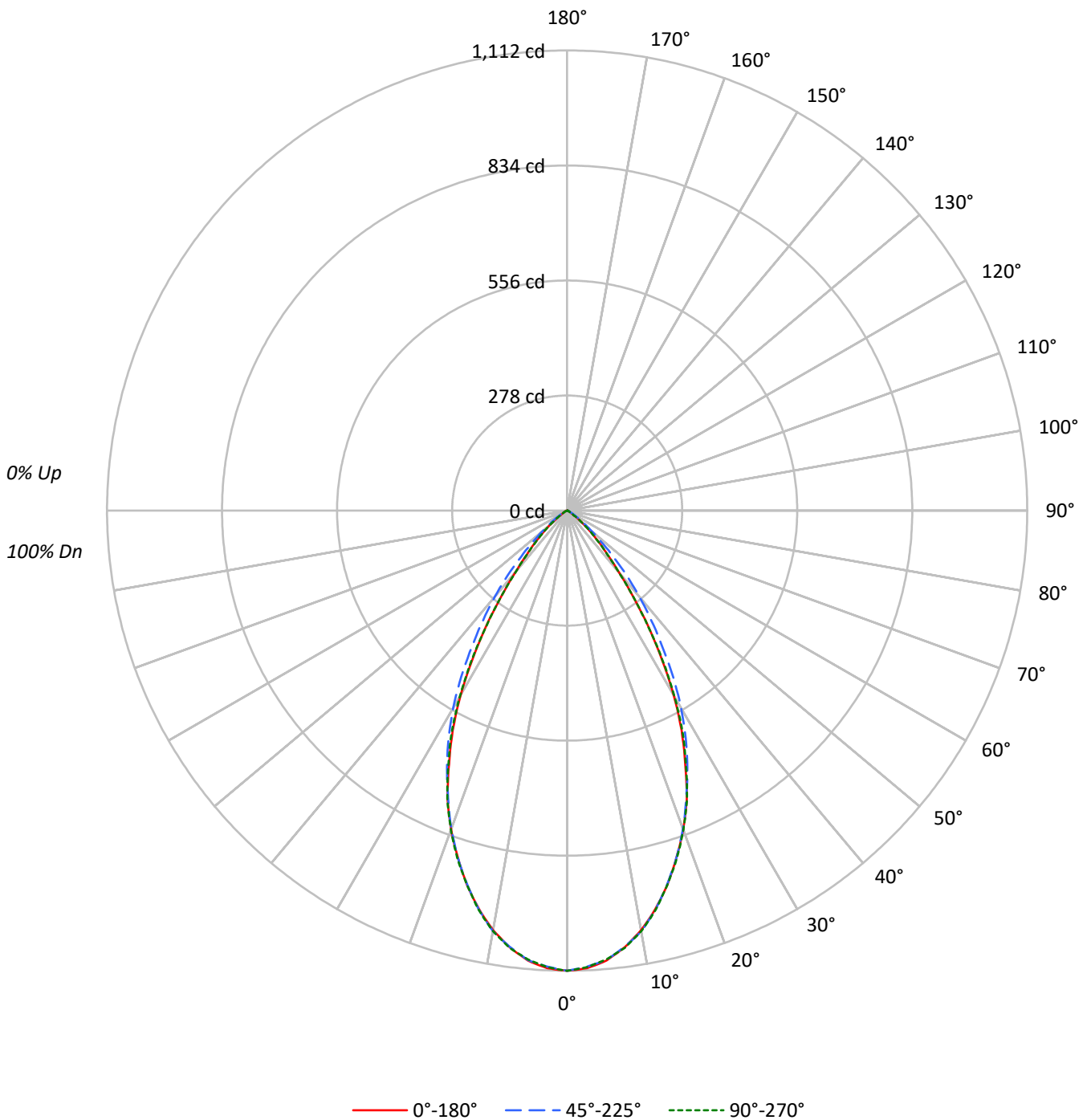
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	97	96	95	93		
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93	93	93	91	89	87	86		
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86	86	86	85	83	81	79		
3	101	95	89	85	99	93	88	84	91	86	83	88	85	82	86	83	81	79	79	79	77	75	74	73		
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	74	73	73	73	71	69	69	67		
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67	67	67	65	64	63	63		
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	63	63	63	61	60	60	58		
7	81	72	65	61	80	71	65	61	70	64	60	68	63	60	67	63	60	58	58	58	56	55	54	54		
8	77	67	61	57	76	67	61	56	65	60	56	64	59	56	63	59	56	54	54	54	52	51	51	51		
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51	51	51	49	48	48	48		
10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	48	48	48	46	45	45	45		

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

	0°	45°	90°
0°	85124	85124	85124
5°	83866	83766	83666
10°	80033	80235	80235
15°	74148	74045	74148
20°	66786	66680	66891
25°	57067	58047	57396
30°	45500	48691	45845
35°	31873	37405	31752
40°	19425	27138	19295
45°	11702	16995	11420
50°	6585	9193	6442
55°	2402	4804	2402
60°	1577	2358	1577
65°	924	1395	924
70°	582	873	582
75°	384	769	384
80°	573	573	573
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.1	9.7
10°-20°	261.1	24.9
20°-30°	311.4	29.7
30°-40°	232.0	22.1
40°-50°	103.9	9.9
50°-60°	28.3	2.7
60°-70°	6.8	0.7
70°-80°	2.3	0.2
80°-90°	0.4	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°	674.6	64.4
0°-40°	906.6	86.5
0°-60°	1038.8	99.1
0°-90°	1048.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1048.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1112	1112	1112	1112	1112	
5°	1092	1088	1090	1089	1089	102
15°	936	934	934	937	936	261
25°	676	686	687	687	680	308
35°	341	372	400	372	340	213
45°	108	126	157	126	106	87
55°	18	28	36	28	18	22
65°	5	6	8	6	5	6
75°	1	3	3	3	1	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1112.1	1112.1	1112.1	1112.1	1112.1
2.5°	1106.9	1104.3	1103.1	1103.1	1104.3
5°	1091.5	1087.6	1090.2	1088.9	1088.9
7.5°	1064.4	1064.4	1063.2	1065.7	1065.7
10°	1029.7	1031.0	1032.3	1031.0	1032.3
12.5°	985.9	984.6	987.2	988.5	988.5
15°	935.7	934.4	934.4	937.0	935.7
17.5°	879.1	880.4	879.1	880.4	881.7
20°	819.9	819.9	818.6	819.9	821.2
22.5°	755.5	755.5	751.7	754.2	756.8
25°	675.7	686.0	687.3	687.3	679.6
27.5°	598.5	606.2	620.4	608.8	604.9
30°	514.8	530.3	550.9	532.9	518.7
32.5°	426.0	454.3	476.2	451.8	429.9
35°	341.1	372.0	400.3	372.0	339.8
37.5°	261.3	294.7	333.4	296.0	261.3
40°	194.4	226.5	271.6	225.2	193.1
42.5°	144.2	171.2	212.4	169.9	144.2
45°	108.1	126.1	157.0	126.1	105.5
47.5°	78.5	94.0	112.0	92.7	78.5
50°	55.3	66.9	77.2	66.9	54.1
52.5°	34.8	45.0	52.8	45.0	34.8
55°	18.0	28.3	36.0	28.3	18.0
57.5°	12.9	15.4	23.2	15.4	12.9
60°	10.3	11.6	15.4	11.6	10.3
62.5°	7.7	9.0	9.0	9.0	7.7
65°	5.1	6.4	7.7	6.4	5.1
67.5°	3.9	5.1	5.1	5.1	3.9
70°	2.6	3.9	3.9	3.9	2.6
72.5°	2.6	2.6	2.6	2.6	2.6
75°	1.3	2.6	2.6	2.6	1.3
77.5°	1.3	1.3	1.3	1.3	1.3
80°	1.3	1.3	1.3	1.3	1.3
82.5°	0.0	1.3	1.3	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)