

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: P241793

Luminaire Tested: **PRS410D010-S4M12-44SMDC-4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241793  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-47)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS410D010-S4M12-44SMDC-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, SHALLOW TRIM SPECULAR  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1025.3 lumens  
Efficiency: N/A  
Efficacy: 102.5 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.1  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

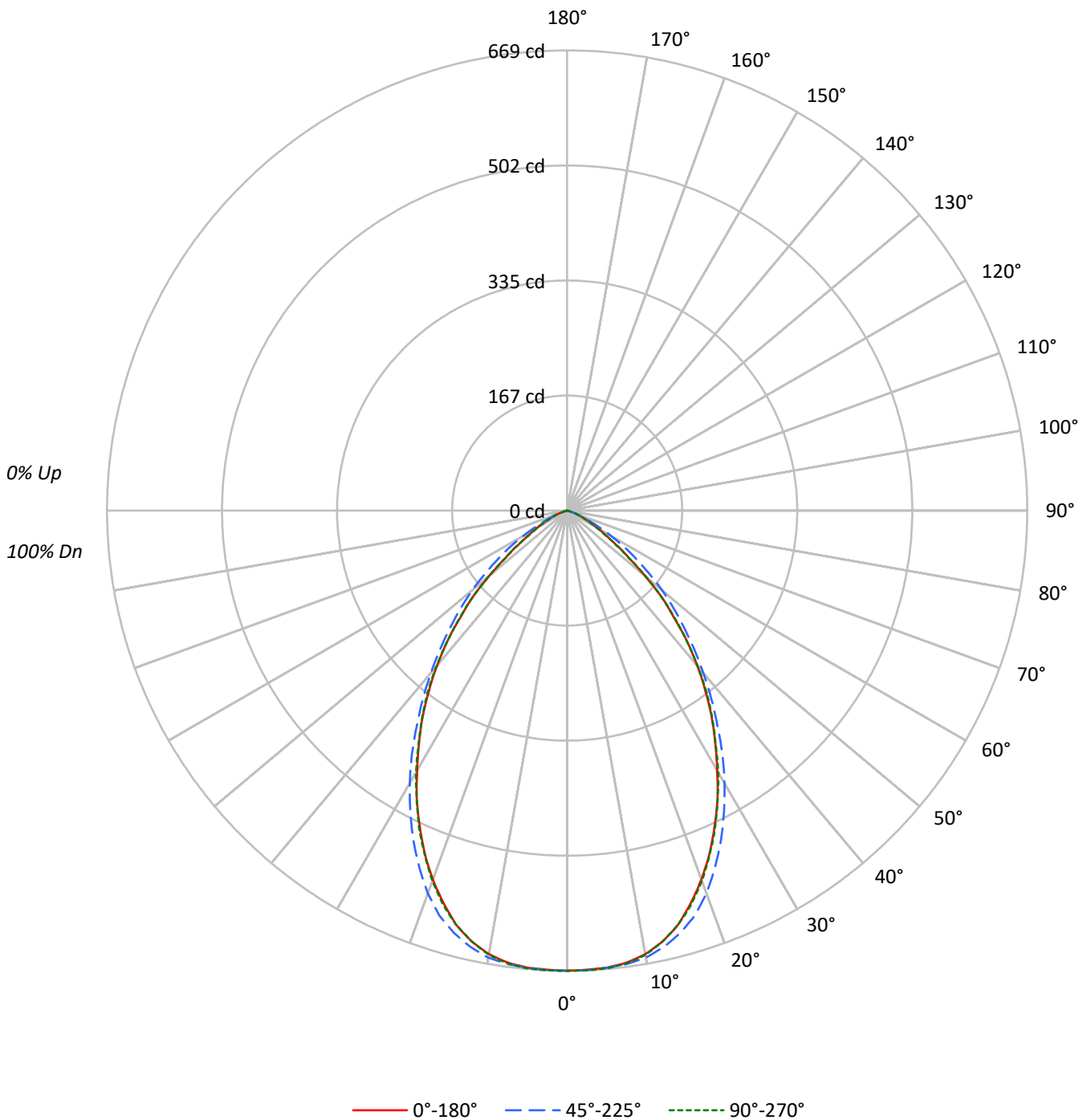
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	101	102	100	98	99	97	95	95	94	93	91
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	51	46	69	58	51	46	57	51	46	56	50	46	55	49	46	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

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

	0°	45°	90°
0°	51208	51208	51208
5°	51249	51249	51326
10°	50894	51290	50979
15°	49408	50367	49408
20°	46495	48230	46666
25°	42828	44703	42997
30°	38553	40436	38827
35°	34237	35564	34331
40°	29427	30745	29526
45°	23771	25969	23999
50°	17600	21458	17719
55°	11610	16348	11610
60°	7746	11313	7440
65°	5126	6593	5126
70°	2954	3402	2954
75°	0	1183	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.4	6.2
10°-20°	176.3	17.2
20°-30°	238.2	23.2
30°-40°	234.7	22.9
40°-50°	179.2	17.5
50°-60°	95.1	9.3
60°-70°	34.1	3.3
70°-80°	4.3	0.4
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°	477.9	46.6
0°-40°	712.5	69.5
0°-60°	986.9	96.3
0°-90°	1025.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1025.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	669	669	669	669	669	
5°	667	667	667	668	668	63
15°	624	631	636	630	624	174
25°	507	520	529	522	509	232
35°	366	378	381	378	367	228
45°	220	234	240	235	222	170
55°	87	102	122	102	87	81
65°	28	33	36	33	28	29
75°	0	1	4	1	0	3
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°	669.0	669.0	669.0	669.0	669.0
2.5°	668.0	668.0	669.0	669.0	669.0
5°	667.0	667.0	667.0	668.0	668.0
7.5°	662.9	662.9	665.0	664.0	664.0
10°	654.8	656.9	659.9	656.9	655.9
12.5°	641.7	646.8	649.8	646.8	641.7
15°	623.5	630.6	635.6	629.5	623.5
17.5°	598.2	607.3	617.4	607.3	600.2
20°	570.8	582.0	592.1	583.0	572.9
22.5°	540.5	552.6	561.7	553.6	541.5
25°	507.1	520.2	529.3	522.3	509.1
27.5°	473.7	486.8	493.9	487.8	473.7
30°	436.2	450.4	457.5	452.4	439.3
32.5°	400.8	414.0	420.0	415.0	401.8
35°	366.4	377.5	380.6	378.5	367.4
37.5°	330.0	342.1	344.1	344.1	333.0
40°	294.5	305.7	307.7	306.7	295.5
42.5°	258.1	270.2	273.3	270.2	258.1
45°	219.6	233.8	239.9	234.8	221.7
47.5°	187.2	198.4	209.5	199.4	186.2
50°	147.8	167.0	180.2	166.0	148.8
52.5°	113.4	133.6	149.8	132.6	113.4
55°	87.0	102.2	122.5	102.2	87.0
57.5°	65.8	77.9	98.2	76.9	63.8
60°	50.6	59.7	73.9	57.7	48.6
62.5°	38.5	44.5	52.6	43.5	37.4
65°	28.3	33.4	36.4	33.4	28.3
67.5°	20.2	24.3	24.3	24.3	20.2
70°	13.2	16.2	15.2	16.2	13.2
72.5°	5.1	8.1	8.1	8.1	5.1
75°	0.0	1.0	4.0	1.0	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)