

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: P241883

Luminaire Tested: **PRS410D010-S4M12-41SMDMW-4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241883  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-53)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS410D010-S4M12-41SMDMW-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE WHITE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 925.1 lumens  
Efficiency: N/A  
Efficacy: 92.5 lumens/watt  
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.02  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

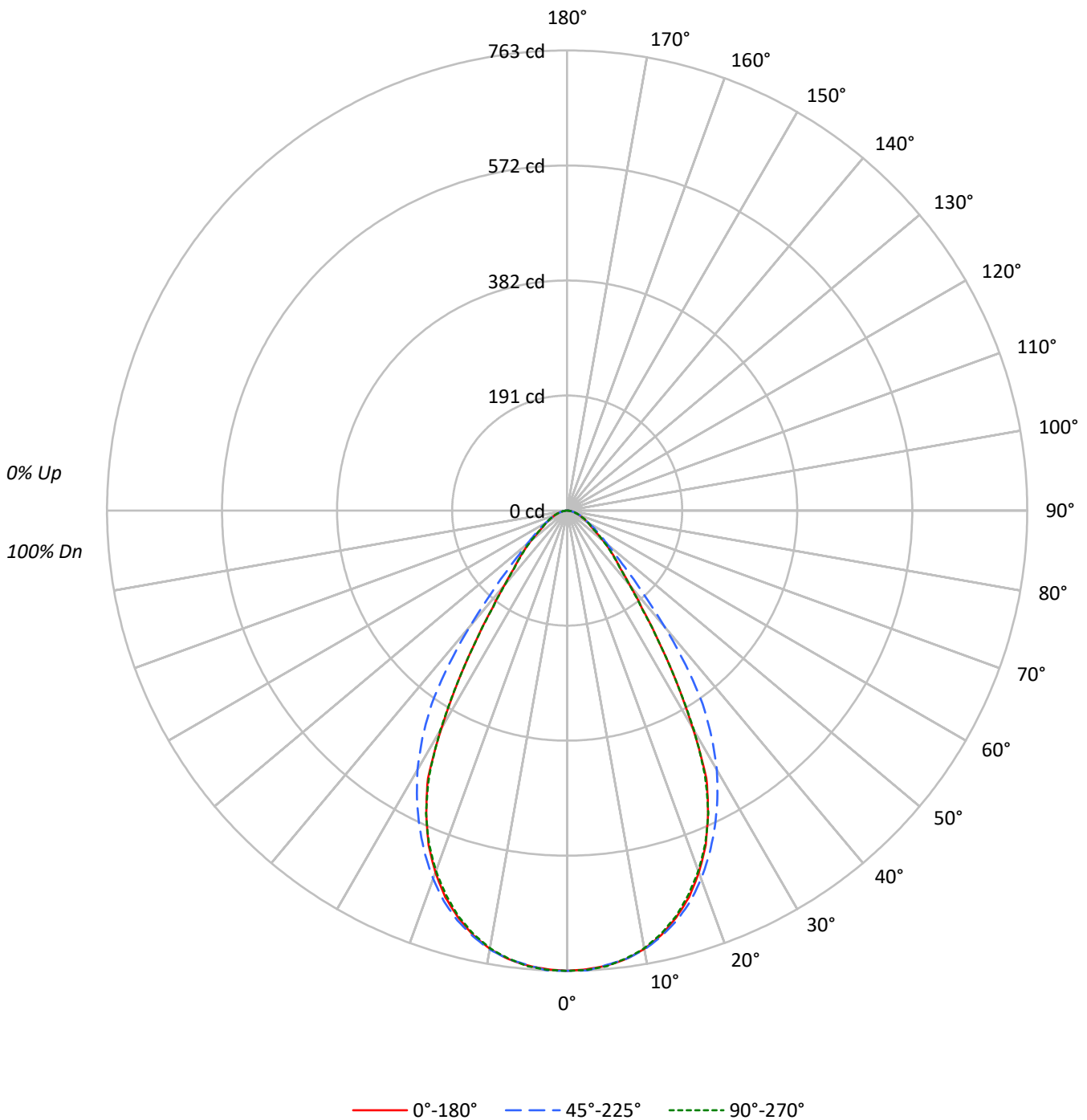
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91					91			
2	105	100	95	91	103	98	93	90	94	91	88	91	88	86	89	86	84	82					82			
3	99	91	85	81	97	90	84	80	87	82	79	85	81	77	82	79	76	74					74			
4	93	84	78	73	91	83	77	72	81	75	71	78	74	70	77	73	70	68					68			
5	87	78	71	66	86	77	70	66	75	69	65	73	68	64	71	67	64	62					62			
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57					57			
7	78	67	60	55	76	66	60	55	65	59	55	64	58	55	62	58	54	53					53			
8	73	63	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49					49			
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	48	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					42			

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

	0°	45°	90°
0°	58418	58418	58418
5°	58172	58096	58249
10°	57353	57430	57275
15°	55344	55748	55185
20°	52026	52930	51781
25°	46679	48900	46763
30°	36856	43839	37130
35°	24594	36601	24594
40°	16187	25080	15977
45°	12167	15231	12048
50°	9407	10360	9276
55°	6886	7967	6886
60°	6047	6353	6047
65°	5325	5506	5325
70°	4521	4767	4767
75°	4200	4200	4200
80°	3570	3570	3570
85°	2635	3513	2635



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.7	7.7
10°-20°	196.1	21.2
20°-30°	257.6	27.8
30°-40°	198.6	21.5
40°-50°	99.8	10.8
50°-60°	52.5	5.7
60°-70°	29.6	3.2
70°-80°	15.1	1.6
80°-90°	4.1	0.4
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°	525.3	56.8
0°-40°	724.0	78.3
0°-60°	876.3	94.7
0°-90°	925.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	925.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	763	763	763	763	763	
5°	757	758	756	758	758	72
15°	698	700	704	699	696	196
25°	553	569	579	568	554	249
35°	263	308	392	309	263	169
45°	112	124	141	122	111	88
55°	52	57	60	57	52	49
65°	29	29	30	29	29	29
75°	14	14	14	14	14	15
85°	3	3	4	3	3	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	763.2	763.2	763.2	763.2	763.2
2.5°	761.2	762.2	763.2	762.2	762.2
5°	757.1	758.1	756.1	758.1	758.1
7.5°	750.0	749.0	750.0	749.0	749.0
10°	737.9	737.9	738.9	736.9	736.9
12.5°	720.7	721.7	722.7	721.7	718.7
15°	698.4	700.4	703.5	699.4	696.4
17.5°	672.1	674.1	679.2	673.1	668.1
20°	638.7	643.8	649.8	643.8	635.7
22.5°	600.2	610.4	616.4	608.3	598.2
25°	552.7	568.9	579.0	567.8	553.7
27.5°	500.0	520.3	539.5	522.3	495.0
30°	417.0	459.5	496.0	461.6	420.1
32.5°	337.1	383.6	446.4	383.6	337.1
35°	263.2	307.7	391.7	308.7	263.2
37.5°	203.5	241.9	322.9	241.9	201.4
40°	162.0	187.3	251.0	186.2	159.9
42.5°	131.6	149.8	186.2	148.8	129.6
45°	112.4	123.5	140.7	122.5	111.3
47.5°	95.1	104.3	107.3	103.2	94.1
50°	79.0	88.1	87.0	87.0	77.9
52.5°	63.8	70.9	71.9	70.9	63.8
55°	51.6	56.7	59.7	56.7	51.6
57.5°	44.5	46.6	50.6	46.6	45.5
60°	39.5	40.5	41.5	40.5	39.5
62.5°	34.4	34.4	34.4	34.4	34.4
65°	29.4	29.4	30.4	29.4	29.4
67.5°	24.3	25.3	25.3	25.3	24.3
70°	20.2	21.3	21.3	21.3	21.3
72.5°	17.2	17.2	17.2	17.2	17.2
75°	14.2	14.2	14.2	14.2	14.2
77.5°	11.1	11.1	11.1	11.1	11.1
80°	8.1	8.1	8.1	8.1	8.1
82.5°	5.1	6.1	6.1	6.1	5.1
85°	3.0	3.0	4.0	3.0	3.0
87.5°	2.0	2.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)