

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: P252918

Luminaire Tested: **PRS410D010-S4M12-44SWDMB**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252918  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1804-748-2)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS410D010-S4M12-44SWDMB  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, SHALLOW TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

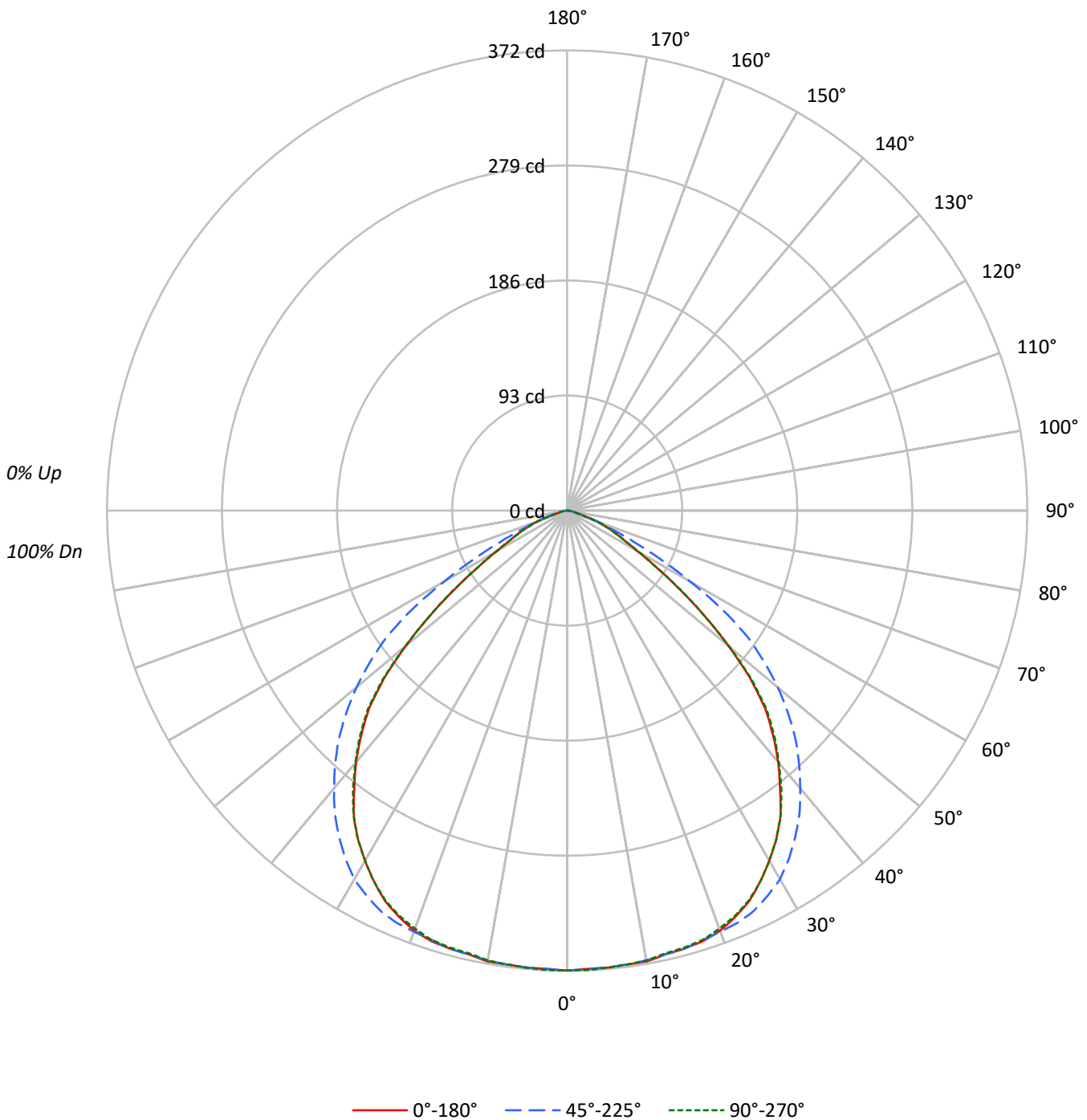
Lumens per Lamp: N/A  
Luminaire Lumens: 871.0 lumens  
Efficiency: N/A  
Efficacy: 87.1 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.41  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88					88			
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	85	82	79	77					77			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67					67			
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	61	59					59			
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	52					52			
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	46					46			
7	70	57	49	44	68	57	49	43	55	48	43	54	47	43	52	47	43	41					41			
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37					37			
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33					33			
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30					30			

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

	0°	45°	90°
0°	28459	28459	28459
5°	28498	28498	28498
10°	28766	28696	28696
15°	29051	29051	28979
20°	29438	29511	29300
25°	29425	30159	29357
30°	28884	30413	28884
35°	28117	30051	28117
40°	26519	29287	26609
45°	24518	28264	24713
50°	20279	26460	20387
55°	14880	23767	15000
60°	10058	17605	10196
65°	7679	10650	7679
70°	5617	5998	5416
75°	2307	3312	2307
80°	1895	1895	1895
85°	1493	1493	1493



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.3	4.1
10°-20°	103.6	11.9
20°-30°	161.8	18.6
30°-40°	193.6	22.2
40°-50°	186.0	21.4
50°-60°	125.0	14.3
60°-70°	51.0	5.9
70°-80°	12.7	1.5
80°-90°	2.0	0.2
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°	300.8	34.5
0°-40°	494.3	56.8
0°-60°	805.3	92.5
0°-90°	871.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	871.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	372	372	372	372	372	
5°	371	371	371	371	371	35
15°	367	367	367	366	366	104
25°	348	352	357	351	348	160
35°	301	310	322	310	301	187
45°	226	243	261	244	228	172
55°	112	135	178	136	112	101
65°	42	48	59	48	42	43
75°	8	9	11	9	8	11
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	371.8	371.8	371.8	371.8	371.8
2.5°	370.9	370.9	370.9	371.8	371.8
5°	370.9	370.9	370.9	370.9	370.9
7.5°	370.1	370.1	370.1	370.1	370.1
10°	370.1	369.2	369.2	369.2	369.2
12.5°	367.5	367.5	367.5	367.5	366.6
15°	366.6	366.6	366.6	365.7	365.7
17.5°	364.9	364.9	364.0	364.0	364.0
20°	361.4	362.3	362.3	361.4	359.7
22.5°	355.4	358.0	360.6	357.1	354.5
25°	348.4	351.9	357.1	351.0	347.6
27.5°	338.1	343.3	351.0	343.3	338.1
30°	326.8	333.7	344.1	333.7	326.8
32.5°	314.7	322.5	333.7	322.5	314.7
35°	300.9	309.5	321.6	310.4	300.9
37.5°	282.7	294.8	308.7	296.6	284.5
40°	265.4	278.4	293.1	279.3	266.3
42.5°	246.4	261.1	277.5	262.0	248.2
45°	226.5	243.0	261.1	243.8	228.3
47.5°	200.6	220.5	242.1	223.1	202.3
50°	170.3	195.4	222.2	197.1	171.2
52.5°	140.1	164.3	200.6	166.0	140.1
55°	111.5	134.9	178.1	135.7	112.4
57.5°	85.6	106.4	148.7	108.1	85.6
60°	65.7	81.3	115.0	82.1	66.6
62.5°	51.9	61.4	84.7	60.5	51.9
65°	42.4	47.6	58.8	47.6	42.4
67.5°	33.7	37.2	38.9	37.2	33.7
70°	25.1	28.5	26.8	28.5	24.2
72.5°	14.7	18.2	18.2	18.2	13.8
75°	7.8	8.6	11.2	8.6	7.8
77.5°	6.1	6.1	6.9	6.1	6.1
80°	4.3	4.3	4.3	4.3	4.3
82.5°	2.6	2.6	2.6	2.6	2.6
85°	1.7	1.7	1.7	1.7	1.7
87.5°	0.9	0.9	0.9	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)