

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: P252908

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252908  
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-S4M12-44SWDMW-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, SHALLOW 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: 1019.2 lumens  
Efficiency: N/A  
Efficacy: 101.9 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

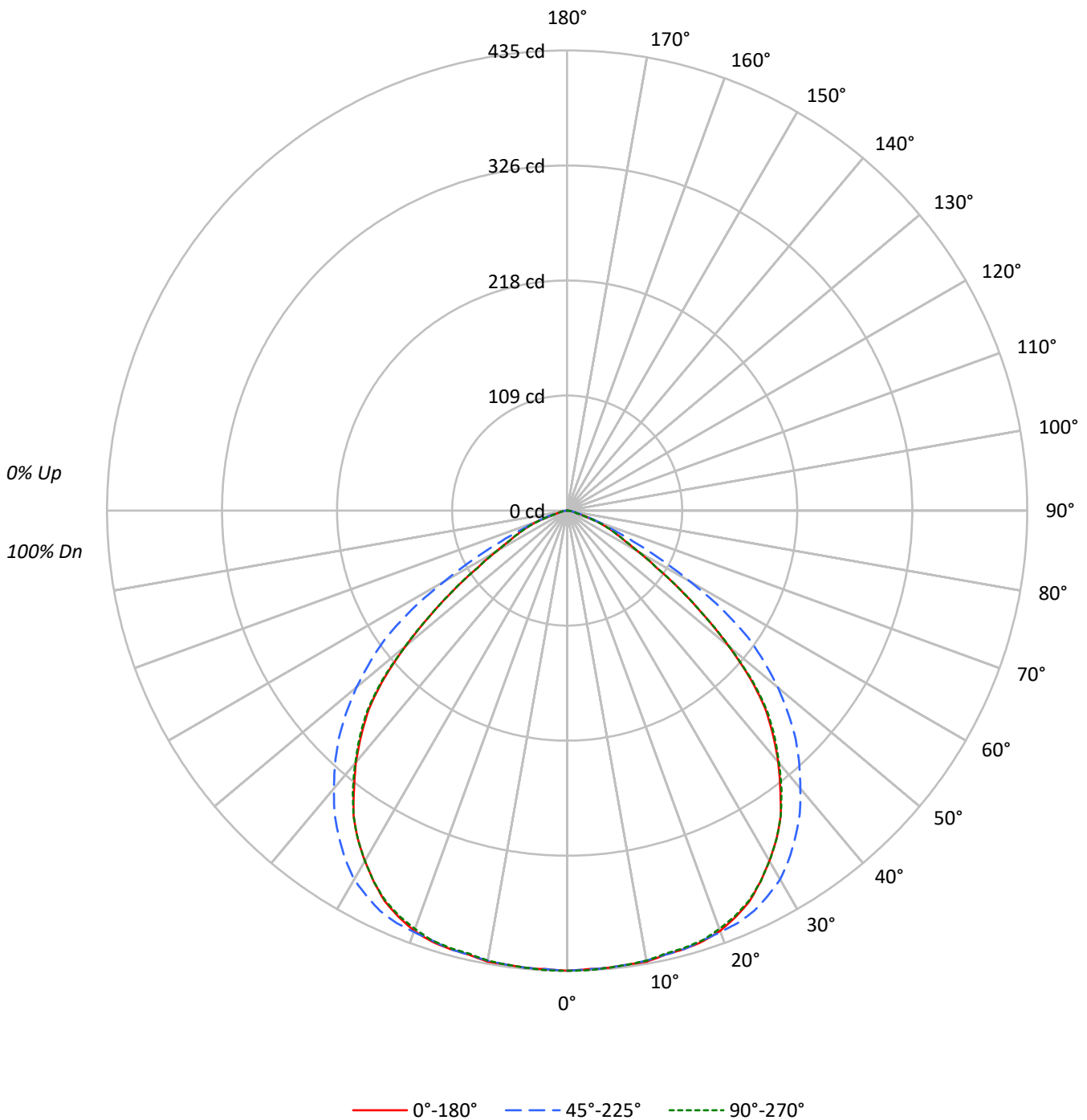
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	85	82	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	61	59
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	52
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	46
7	70	57	49	44	68	57	49	43	55	48	43	54	47	43	52	47	43	41
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

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

	0°	45°	90°
0°	33296	33296	33296
5°	33347	33347	33347
10°	33655	33577	33577
15°	33995	33995	33908
20°	34448	34529	34285
25°	34433	35286	34348
30°	33798	35593	33798
35°	32901	35162	32901
40°	31035	34273	31135
45°	28697	33070	28913
50°	23733	30961	23852
55°	17415	27811	17549
60°	11772	20605	11925
65°	8983	12461	8983
70°	6557	7027	6333
75°	2691	3904	2691
80°	2248	2248	2248
85°	1756	1756	1756



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.4	4.1
10°-20°	121.2	11.9
20°-30°	189.3	18.6
30°-40°	226.5	22.2
40°-50°	217.7	21.4
50°-60°	146.2	14.3
60°-70°	59.7	5.9
70°-80°	14.8	1.5
80°-90°	2.3	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°	351.9	34.5
0°-40°	578.4	56.8
0°-60°	942.3	92.5
0°-90°	1019.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1019.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	435	435	435	435	435	
5°	434	434	434	434	434	41
15°	429	429	429	428	428	121
25°	408	412	418	411	407	187
35°	352	362	376	363	352	219
45°	265	284	306	285	267	201
55°	130	158	208	159	132	118
65°	50	56	69	56	50	50
75°	9	10	13	10	9	13
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°	435.0	435.0	435.0	435.0	435.0
2.5°	434.0	434.0	434.0	435.0	435.0
5°	434.0	434.0	434.0	434.0	434.0
7.5°	433.0	433.0	433.0	433.0	433.0
10°	433.0	432.0	432.0	432.0	432.0
12.5°	430.0	430.0	430.0	430.0	429.0
15°	429.0	429.0	429.0	427.9	427.9
17.5°	426.9	426.9	425.9	425.9	425.9
20°	422.9	423.9	423.9	422.9	420.9
22.5°	415.8	418.8	421.9	417.8	414.8
25°	407.7	411.8	417.8	410.7	406.7
27.5°	395.6	401.6	410.7	401.6	395.6
30°	382.4	390.5	402.7	390.5	382.4
32.5°	368.3	377.4	390.5	377.4	368.3
35°	352.1	362.2	376.3	363.2	352.1
37.5°	330.8	345.0	361.2	347.0	332.8
40°	310.6	325.8	343.0	326.8	311.6
42.5°	288.3	305.5	324.8	306.5	290.4
45°	265.1	284.3	305.5	285.3	267.1
47.5°	234.7	258.0	283.3	261.0	236.7
50°	199.3	228.6	260.0	230.7	200.3
52.5°	163.9	192.2	234.7	194.2	163.9
55°	130.5	157.8	208.4	158.8	131.5
57.5°	100.2	124.4	174.0	126.5	100.2
60°	76.9	95.1	134.6	96.1	77.9
62.5°	60.7	71.8	99.1	70.8	60.7
65°	49.6	55.6	68.8	55.6	49.6
67.5°	39.5	43.5	45.5	43.5	39.5
70°	29.3	33.4	31.4	33.4	28.3
72.5°	17.2	21.2	21.2	21.2	16.2
75°	9.1	10.1	13.2	10.1	9.1
77.5°	7.1	7.1	8.1	7.1	7.1
80°	5.1	5.1	5.1	5.1	5.1
82.5°	3.0	3.0	3.0	3.0	3.0
85°	2.0	2.0	2.0	2.0	2.0
87.5°	1.0	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)