

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: P252919

Luminaire Tested: **PRS415D010-S4M12-44SWDMB**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252919  
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: PRS415D010-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**

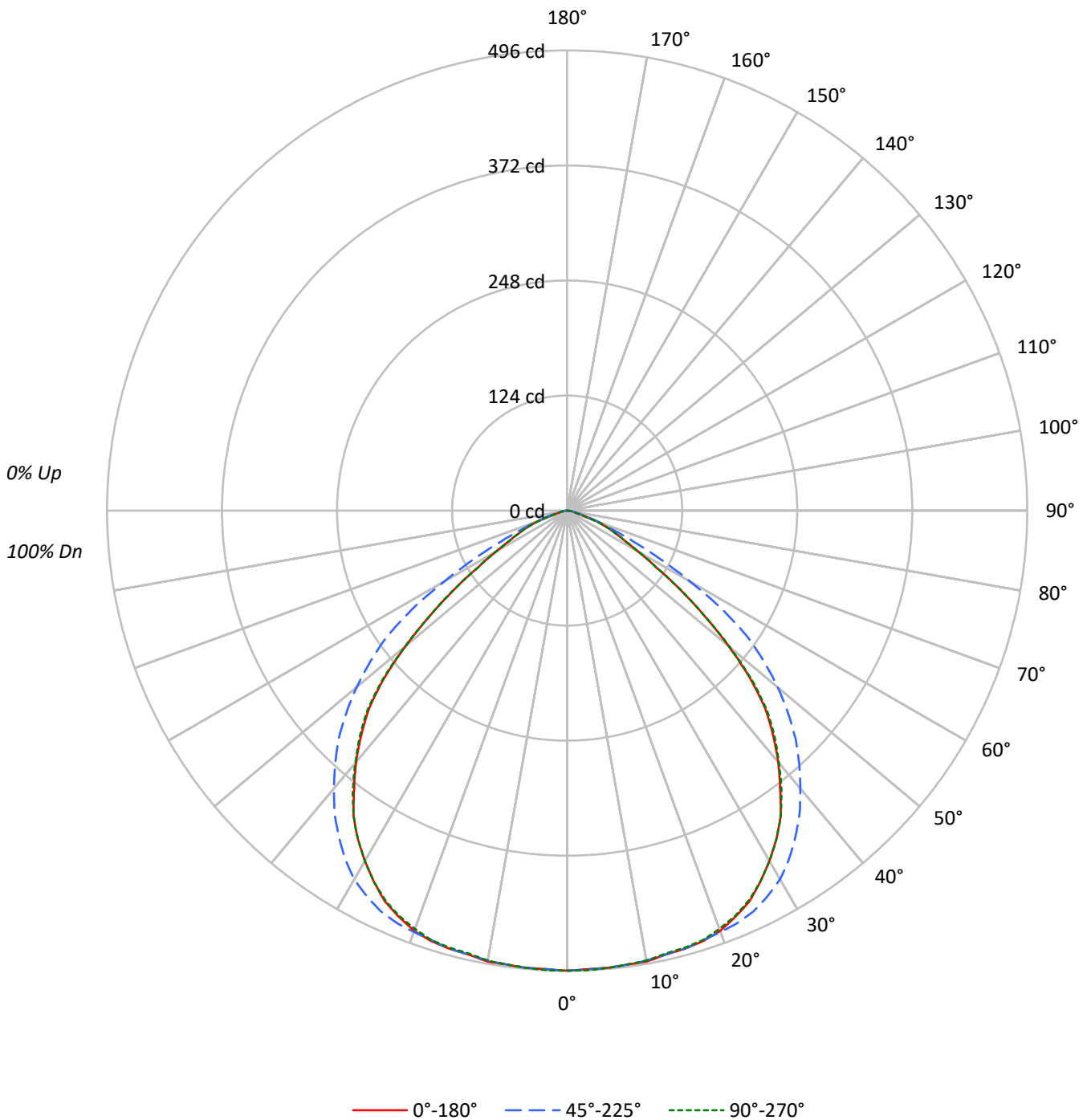
Lumens per Lamp: N/A  
Luminaire Lumens: 1161.9 lumens  
Efficiency: N/A  
Efficacy: 96.8 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.41  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 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	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°	37958	37958	37958
5°	38018	38018	38018
10°	38365	38279	38279
15°	38750	38750	38663
20°	39270	39368	39082
25°	39255	40227	39154
30°	38536	40569	38536
35°	37508	40087	37508
40°	35382	39069	35492
45°	32713	37703	32962
50°	27055	35295	27198
55°	19857	31708	20004
60°	13426	23484	13594
65°	10233	14200	10233
70°	7475	8012	7229
75°	3076	4436	3076
80°	2557	2557	2557
85°	2020	2020	2020



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.2	4.1
10°-20°	138.2	11.9
20°-30°	215.9	18.6
30°-40°	258.2	22.2
40°-50°	248.2	21.4
50°-60°	166.7	14.3
60°-70°	68.1	5.9
70°-80°	16.9	1.5
80°-90°	2.7	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°	401.2	34.5
0°-40°	659.4	56.8
0°-60°	1074.3	92.5
0°-90°	1161.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1161.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	496	496	496	496	496	
5°	495	495	495	495	495	47
15°	489	489	489	488	488	138
25°	465	469	476	468	464	213
35°	401	413	429	414	401	249
45°	302	324	348	325	304	229
55°	149	180	238	181	150	135
65°	56	63	78	63	56	57
75°	10	12	15	12	10	15
85°	2	2	2	2	2	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	495.9	495.9	495.9	495.9	495.9
2.5°	494.8	494.8	494.8	495.9	495.9
5°	494.8	494.8	494.8	494.8	494.8
7.5°	493.6	493.6	493.6	493.6	493.6
10°	493.6	492.5	492.5	492.5	492.5
12.5°	490.2	490.2	490.2	490.2	489.0
15°	489.0	489.0	489.0	487.9	487.9
17.5°	486.7	486.7	485.6	485.6	485.6
20°	482.1	483.3	483.3	482.1	479.8
22.5°	474.0	477.5	480.9	476.3	472.9
25°	464.8	469.4	476.3	468.3	463.6
27.5°	451.0	457.9	468.3	457.9	451.0
30°	436.0	445.2	459.0	445.2	436.0
32.5°	419.8	430.2	445.2	430.2	419.8
35°	401.4	412.9	429.0	414.1	401.4
37.5°	377.1	393.3	411.7	395.6	379.5
40°	354.1	371.4	391.0	372.5	355.2
42.5°	328.7	348.3	370.2	349.5	331.0
45°	302.2	324.1	348.3	325.2	304.5
47.5°	267.6	294.1	322.9	297.6	269.9
50°	227.2	260.7	296.4	263.0	228.4
52.5°	186.8	219.1	267.6	221.4	186.8
55°	148.8	179.9	237.6	181.1	149.9
57.5°	114.2	141.9	198.4	144.2	114.2
60°	87.7	108.4	153.4	109.6	88.8
62.5°	69.2	81.9	113.0	80.7	69.2
65°	56.5	63.4	78.4	63.4	56.5
67.5°	45.0	49.6	51.9	49.6	45.0
70°	33.4	38.1	35.8	38.1	32.3
72.5°	19.6	24.2	24.2	24.2	18.5
75°	10.4	11.5	15.0	11.5	10.4
77.5°	8.1	8.1	9.2	8.1	8.1
80°	5.8	5.8	5.8	5.8	5.8
82.5°	3.5	3.5	3.5	3.5	3.5
85°	2.3	2.3	2.3	2.3	2.3
87.5°	1.2	1.2	1.2	1.2	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)