

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: P252979

Luminaire Tested: **PRS415D010-S4M12-41SWDMB**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252979  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1805-776-2)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-41SWDMB  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP 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: 748.7 lumens  
Efficiency: N/A  
Efficacy: 62.4 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.1 / 1.15  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

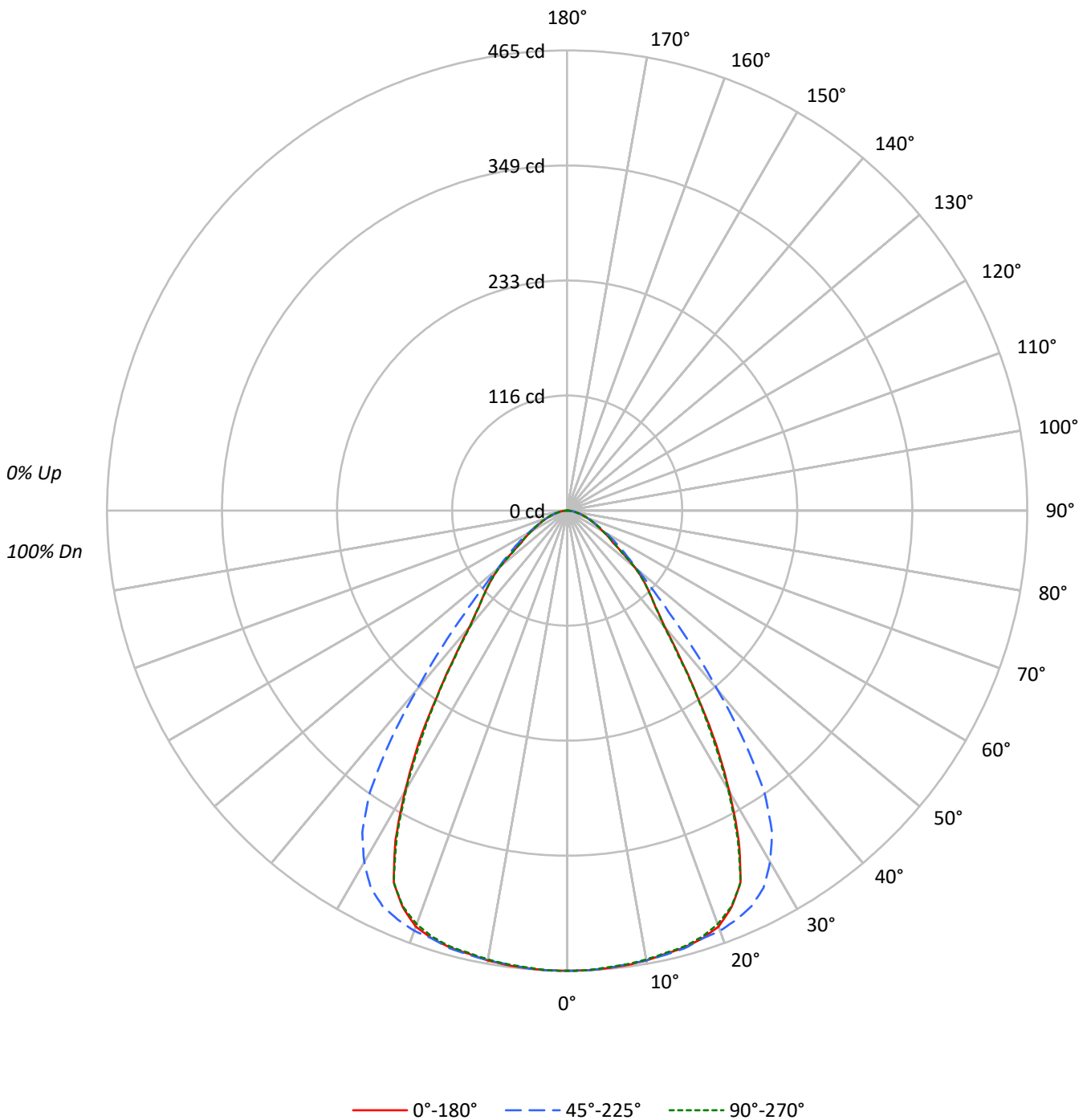
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92				90	
2	104	98	93	88	102	96	91	87	93	89	86	90	86	84	87	84	82				80	
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73				72	
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66				64	
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	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	51	60	54	50	59	54	50				48	
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46				44	
9	66	55	48	43	65	54	47	43	53	47	43	52	47	42	51	46	42				41	
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39				38	

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

	0°	45°	90°
0°	35593	35593	35593
5°	35667	35667	35598
10°	35870	35870	35800
15°	36222	36294	36151
20°	36435	36802	36223
25°	35016	37254	35016
30°	28964	36247	28734
35°	21436	32443	21277
40°	15308	23631	15138
45°	12752	15729	12752
50°	10658	10967	10658
55°	7567	8741	7687
60°	6368	6920	6368
65°	5452	5615	5452
70°	4767	4767	4767
75°	4200	4200	4200
80°	3526	3526	3526
85°	3074	3074	3074



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.2	5.9
10°-20°	129.1	17.2
20°-30°	193.0	25.8
30°-40°	171.8	22.9
40°-50°	102.2	13.7
50°-60°	57.9	7.7
60°-70°	31.0	4.1
70°-80°	15.2	2.0
80°-90°	4.2	0.6
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°	366.3	48.9
0°-40°	538.1	71.9
0°-60°	698.2	93.3
0°-90°	748.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	748.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	465	465	465	465	465	
5°	464	464	464	464	463	44
15°	457	457	458	456	456	129
25°	415	426	441	425	415	185
35°	229	268	347	268	228	145
45°	118	127	145	126	118	91
55°	57	63	66	63	58	54
65°	30	31	31	31	30	30
75°	14	14	14	14	14	15
85°	4	4	4	4	4	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	465.0	465.0	465.0	465.0	465.0
2.5°	465.0	465.0	465.0	465.0	465.0
5°	464.2	464.2	464.2	464.2	463.3
7.5°	463.3	462.4	462.4	462.4	462.4
10°	461.5	461.5	461.5	460.6	460.6
12.5°	458.8	458.8	459.7	458.8	458.0
15°	457.1	457.1	458.0	456.2	456.2
17.5°	453.5	454.4	453.5	453.5	451.8
20°	447.3	450.0	451.8	449.1	444.7
22.5°	434.0	441.1	447.3	440.2	433.2
25°	414.6	426.1	441.1	425.2	414.6
27.5°	375.6	404.8	429.6	402.2	372.9
30°	327.7	363.2	410.1	360.5	325.1
32.5°	279.9	315.3	385.3	313.6	275.5
35°	229.4	268.4	347.2	267.5	227.7
37.5°	186.9	222.3	294.1	220.6	185.1
40°	153.2	180.7	236.5	179.8	151.5
42.5°	132.0	147.0	186.9	146.2	132.0
45°	117.8	126.7	145.3	125.8	117.8
47.5°	104.5	111.6	114.3	110.7	104.5
50°	89.5	97.4	92.1	97.4	89.5
52.5°	70.9	80.6	77.1	81.5	70.0
55°	56.7	62.9	65.5	62.9	57.6
57.5°	49.6	51.4	54.9	51.4	49.6
60°	41.6	43.4	45.2	43.4	41.6
62.5°	35.4	37.2	37.2	37.2	36.3
65°	30.1	31.0	31.0	31.0	30.1
67.5°	25.7	25.7	25.7	25.7	25.7
70°	21.3	21.3	21.3	21.3	21.3
72.5°	17.7	17.7	17.7	17.7	17.7
75°	14.2	14.2	14.2	14.2	14.2
77.5°	11.5	11.5	10.6	11.5	10.6
80°	8.0	8.0	8.0	8.0	8.0
82.5°	6.2	6.2	6.2	6.2	6.2
85°	3.5	3.5	3.5	3.5	3.5
87.5°	1.8	1.8	1.8	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)