

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: P252984

Luminaire Tested: **PRS415D010-S4M12-41SWDMB-4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252984  
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-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 757.8 lumens  
Efficiency: N/A  
Efficacy: 63.1 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

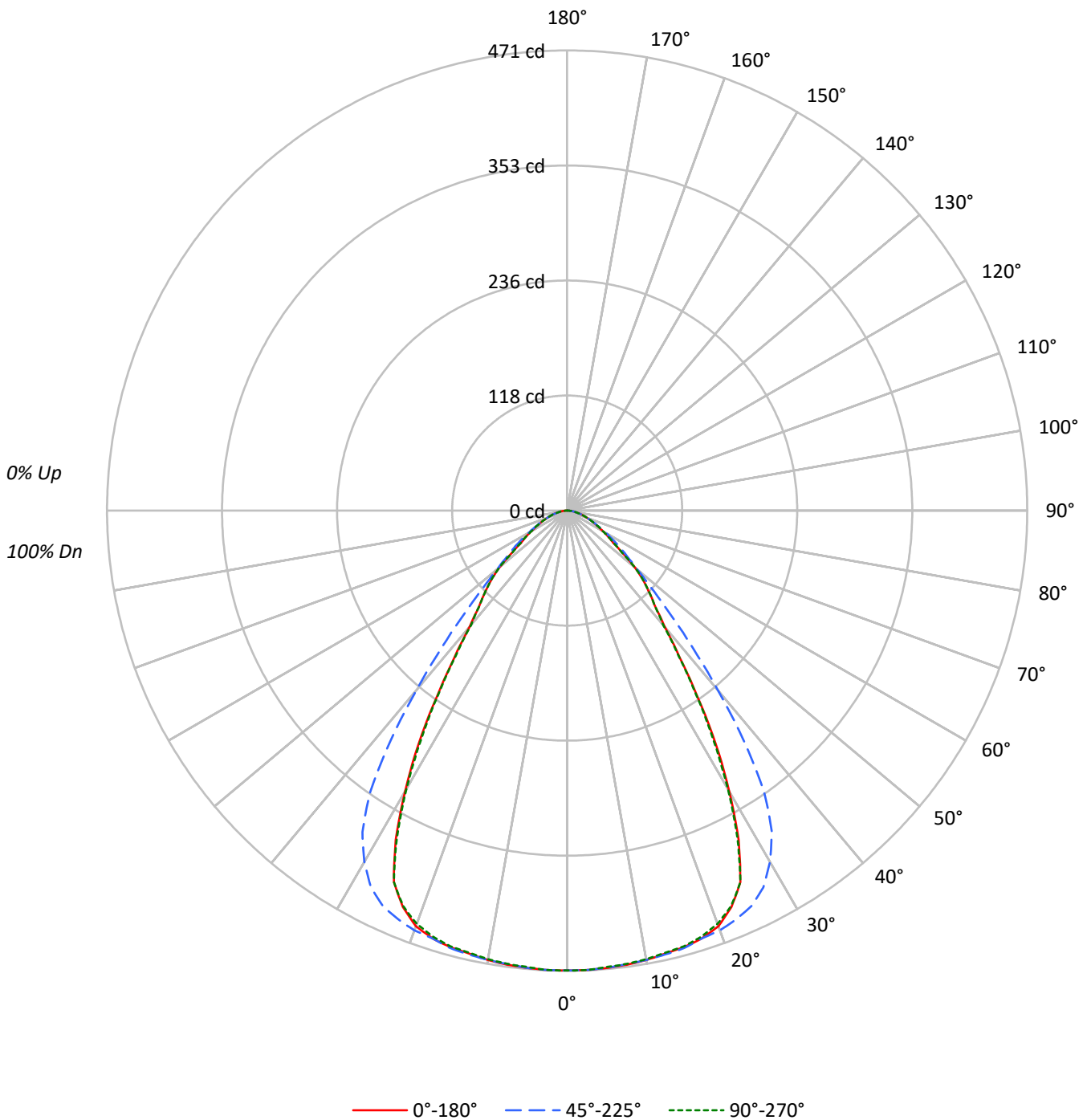
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					90			
2	104	98	93	88	102	96	91	87	93	89	86	90	86	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72					72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53					53			
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	47	43	53	47	43	52	47	42	51	46	42	41					41			
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38					38			

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

	0°	45°	90°
0°	36029	36029	36029
5°	36097	36097	36028
10°	36305	36305	36235
15°	36658	36729	36587
20°	36875	37242	36663
25°	35438	37710	35438
30°	29317	36688	29079
35°	21697	32836	21529
40°	15498	23921	15318
45°	12903	15913	12903
50°	10777	11098	10777
55°	7660	8848	7780
60°	6445	6996	6445
65°	5524	5687	5524
70°	4812	4812	4812
75°	4229	4229	4229
80°	3570	3570	3570
85°	3162	3162	3162



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.7	5.9
10°-20°	130.7	17.2
20°-30°	195.3	25.8
30°-40°	173.9	22.9
40°-50°	103.5	13.7
50°-60°	58.6	7.7
60°-70°	31.4	4.1
70°-80°	15.4	2.0
80°-90°	4.3	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°	370.7	48.9
0°-40°	544.6	71.9
0°-60°	706.7	93.3
0°-90°	757.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	757.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	471	471	471	471	471	
5°	470	470	470	470	469	45
15°	463	463	464	462	462	131
25°	420	431	446	430	420	187
35°	232	272	351	271	230	147
45°	119	128	147	127	119	93
55°	57	64	66	64	58	55
65°	30	31	31	31	30	31
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°	470.7	470.7	470.7	470.7	470.7
2.5°	470.7	470.7	470.7	470.7	470.7
5°	469.8	469.8	469.8	469.8	468.9
7.5°	468.9	468.0	468.0	468.0	468.0
10°	467.1	467.1	467.1	466.2	466.2
12.5°	464.4	464.4	465.3	464.4	463.5
15°	462.6	462.6	463.5	461.7	461.7
17.5°	459.0	459.9	459.0	459.0	457.2
20°	452.7	455.4	457.2	454.5	450.1
22.5°	439.3	446.5	452.7	445.6	438.4
25°	419.6	431.2	446.5	430.3	419.6
27.5°	380.1	409.7	434.8	407.0	377.4
30°	331.7	367.6	415.1	364.9	329.0
32.5°	283.3	319.2	390.0	317.4	278.8
35°	232.2	271.6	351.4	270.8	230.4
37.5°	189.2	225.0	297.6	223.2	187.4
40°	155.1	182.9	239.4	182.0	153.3
42.5°	133.6	148.8	189.2	147.9	133.6
45°	119.2	128.2	147.0	127.3	119.2
47.5°	105.8	113.0	115.7	112.1	105.8
50°	90.5	98.6	93.2	98.6	90.5
52.5°	71.7	81.6	78.0	82.5	70.8
55°	57.4	63.7	66.3	63.7	58.3
57.5°	50.2	52.0	55.6	52.0	50.2
60°	42.1	43.9	45.7	43.9	42.1
62.5°	35.9	37.7	37.7	37.7	36.8
65°	30.5	31.4	31.4	31.4	30.5
67.5°	26.0	26.0	26.0	26.0	26.0
70°	21.5	21.5	21.5	21.5	21.5
72.5°	17.9	17.9	17.9	17.9	17.9
75°	14.3	14.3	14.3	14.3	14.3
77.5°	11.7	11.7	10.8	11.7	10.8
80°	8.1	8.1	8.1	8.1	8.1
82.5°	6.3	6.3	6.3	6.3	6.3
85°	3.6	3.6	3.6	3.6	3.6
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)