

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: P241684

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241684  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-40)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-44SNDMW  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SHALLOW TRIM MATTE WHITE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1249.9 lumens  
Efficiency: N/A  
Efficacy: 104.2 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 0.89 / 0.94  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

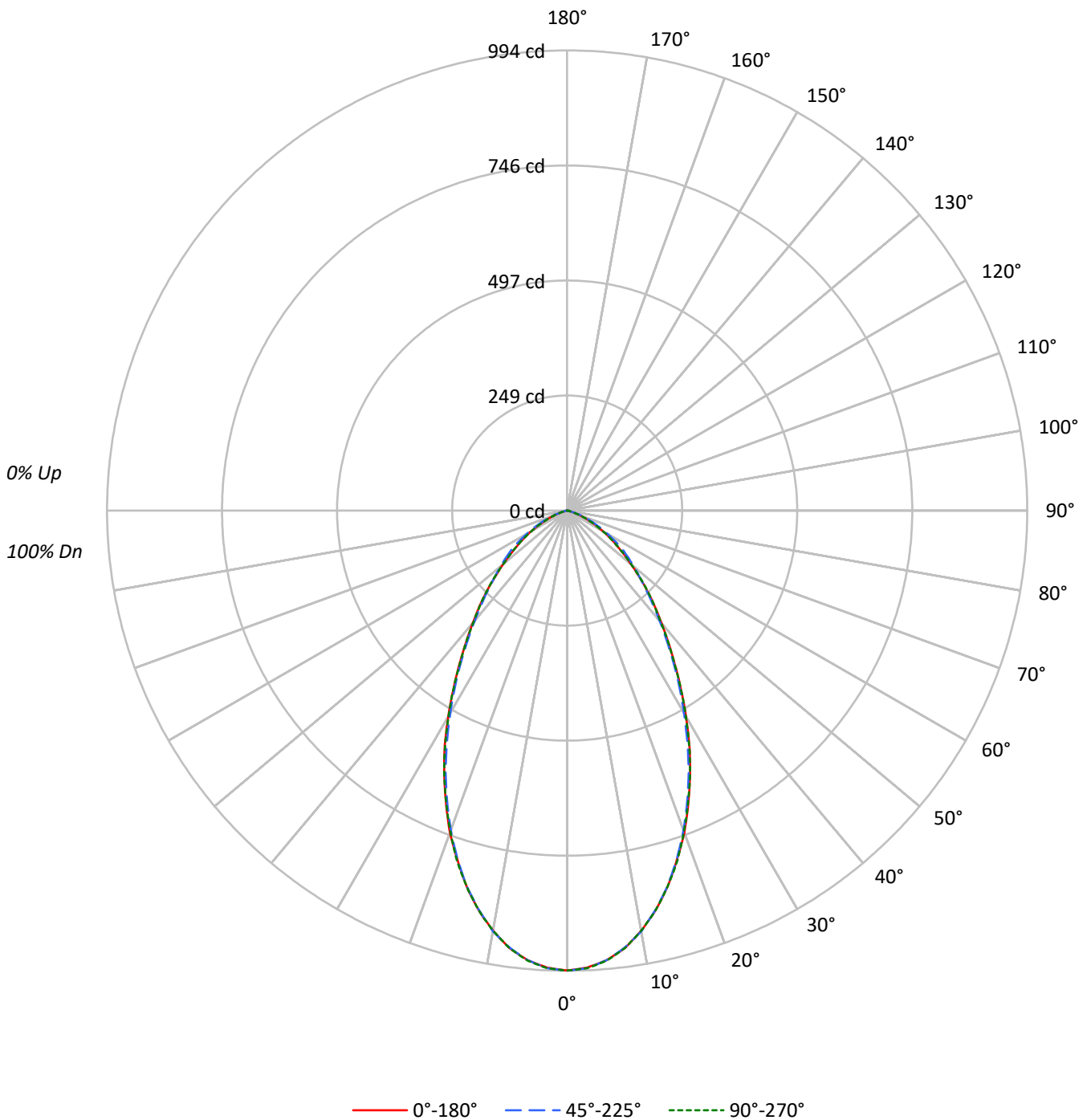
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90					90			
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81					81			
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72					72			
4	91	82	75	69	89	80	74	69	78	73	68	76	71	67	74	70	66	65					65			
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58					58			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53					53			
7	75	64	56	51	73	63	56	51	62	55	51	60	55	51	59	54	50	49					49			
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45					45			
9	67	55	48	43	65	55	48	43	54	47	43	53	47	43	52	47	43	41					41			
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	43	40	38					38			

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

	0°	45°	90°
0°	76046	76046	76046
5°	74907	74907	75007
10°	71623	71732	71623
15°	66580	66469	66580
20°	60294	59854	60074
25°	53047	52490	53047
30°	45377	44555	45262
35°	37881	37386	37760
40°	31585	31045	31445
45°	26424	25980	26564
50°	21434	22387	21434
55°	17268	19404	17442
60°	13686	15309	13686
65°	9907	11591	9907
70°	5975	7452	5975
75°	1981	3164	1981
80°	1763	1763	1763
85°	1142	1142	1142



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.4	7.3
10°-20°	234.2	18.7
20°-30°	285.8	22.9
30°-40°	252.6	20.2
40°-50°	188.5	15.1
50°-60°	122.3	9.8
60°-70°	60.2	4.8
70°-80°	13.1	1.0
80°-90°	1.6	0.1
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°	611.5	48.9
0°-40°	864.1	69.1
0°-60°	1175.0	94.0
0°-90°	1249.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1249.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	994	994	994	994	994	
5°	975	975	975	976	976	91
15°	840	840	839	840	840	234
25°	628	627	622	626	628	288
35°	405	403	400	403	404	255
45°	244	244	240	243	245	189
55°	129	133	145	135	131	117
65°	55	61	64	60	55	55
75°	7	8	11	8	7	11
85°	1	1	1	1	1	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	993.5	993.5	993.5	993.5	993.5
2.5°	988.2	988.2	989.5	989.5	989.5
5°	974.9	974.9	974.9	976.2	976.2
7.5°	953.5	952.2	952.2	953.5	953.5
10°	921.5	921.5	922.9	920.2	921.5
12.5°	884.2	884.2	882.8	884.2	884.2
15°	840.2	840.2	838.8	840.2	840.2
17.5°	789.5	789.5	788.2	790.8	792.2
20°	740.2	738.8	734.8	737.5	737.5
22.5°	684.1	682.8	677.5	681.5	682.8
25°	628.1	626.8	621.5	625.5	628.1
27.5°	572.1	566.8	561.4	568.1	570.8
30°	513.4	509.4	504.1	509.4	512.1
32.5°	457.4	456.1	450.8	454.8	457.4
35°	405.4	402.8	400.1	402.8	404.1
37.5°	358.7	356.1	352.1	356.1	358.7
40°	316.1	313.4	310.7	312.1	314.7
42.5°	280.1	277.4	273.4	276.1	278.7
45°	244.1	244.1	240.0	242.7	245.4
47.5°	210.7	213.4	212.0	213.4	212.0
50°	180.0	185.4	188.0	185.4	180.0
52.5°	153.4	157.4	165.4	157.4	153.4
55°	129.4	133.4	145.4	134.7	130.7
57.5°	109.4	113.4	122.7	113.4	109.4
60°	89.4	94.7	100.0	94.7	89.4
62.5°	72.0	77.3	81.4	77.3	70.7
65°	54.7	61.3	64.0	60.0	54.7
67.5°	40.0	45.3	48.0	45.3	40.0
70°	26.7	32.0	33.3	32.0	26.7
72.5°	16.0	20.0	20.0	18.7	16.0
75°	6.7	8.0	10.7	8.0	6.7
77.5°	5.3	5.3	5.3	5.3	5.3
80°	4.0	4.0	4.0	4.0	4.0
82.5°	2.7	2.7	2.7	2.7	2.7
85°	1.3	1.3	1.3	1.3	1.3
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)