

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: P241924

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241924  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-56)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-41SMDH  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1187.2 lumens  
Efficiency: N/A  
Efficacy: 98.9 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 0.95 / 0.98  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

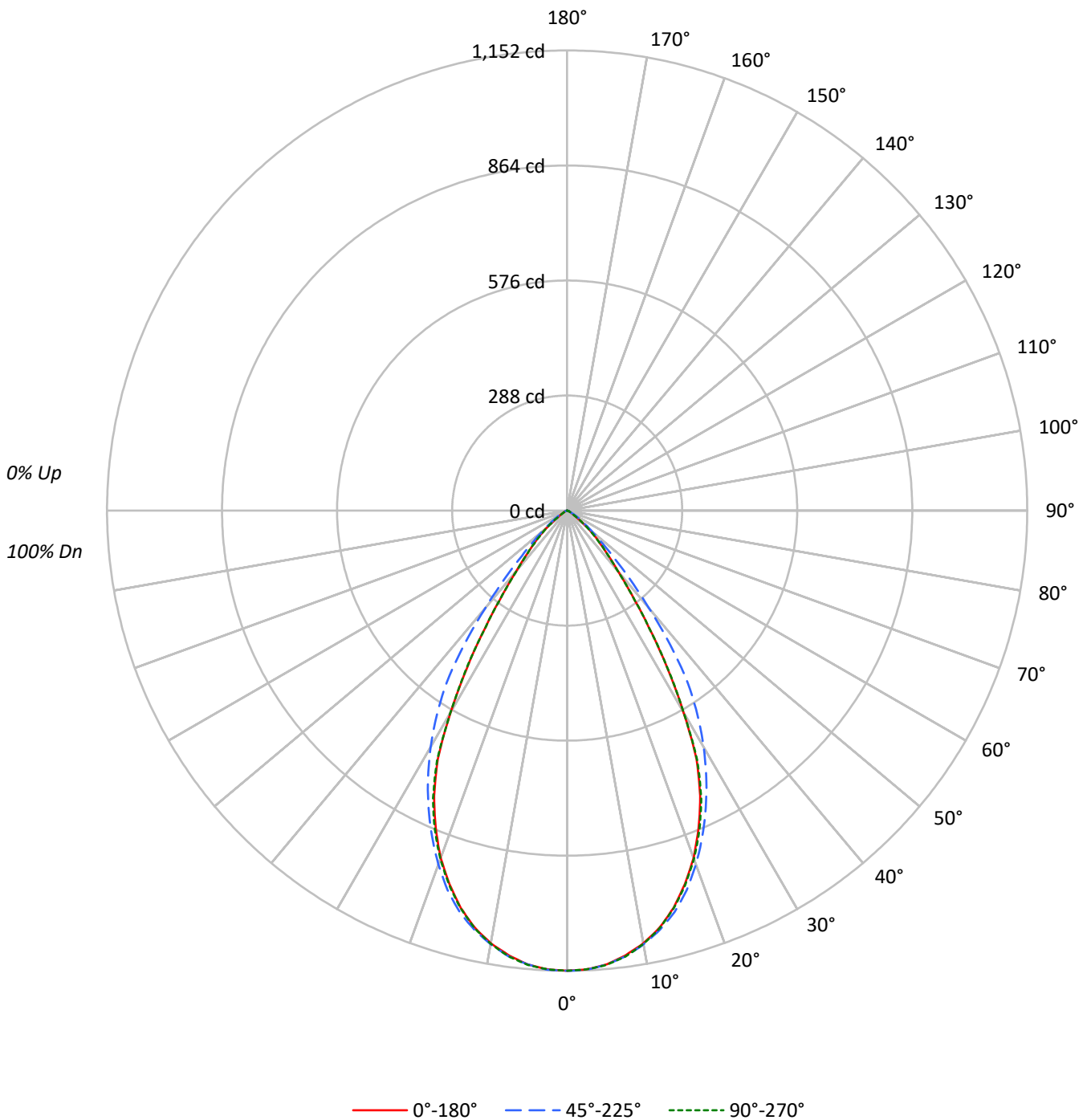
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93					93			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85					85			
3	101	94	89	85	99	93	88	84	90	86	83	88	84	82	86	83	80	79					79			
4	96	88	82	77	94	87	81	77	84	80	76	82	78	75	80	77	74	73					73			
5	90	82	75	71	89	81	75	71	79	74	70	77	73	69	76	72	69	67					67			
6	86	76	70	65	84	75	69	65	74	68	65	72	68	64	71	67	64	62					62			
7	81	71	65	60	80	71	64	60	69	64	60	68	63	60	67	63	59	58					58			
8	77	67	60	56	76	66	60	56	65	60	56	64	59	55	63	59	55	54					54			
9	73	63	56	52	72	62	56	52	61	56	52	60	55	52	59	55	52	50					50			
10	69	59	53	49	68	59	53	49	58	52	49	57	52	49	56	52	48	47					47			

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

	0°	45°	90°
0°	88178	88178	88178
5°	87593	87593	87700
10°	85497	85706	85605
15°	81573	82413	81676
20°	75379	76788	75591
25°	66552	69372	67117
30°	51502	60455	51617
35°	33144	49216	33144
40°	19714	31845	19584
45°	12698	17320	12698
50°	7776	9681	7621
55°	3203	5511	3203
60°	2036	2863	2036
65°	1213	1684	1213
70°	895	1186	895
75°	799	799	384
80°	573	573	573
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.6	9.1
10°-20°	289.0	24.3
20°-30°	366.4	30.9
30°-40°	267.6	22.5
40°-50°	111.2	9.4
50°-60°	33.6	2.8
60°-70°	8.6	0.7
70°-80°	2.7	0.2
80°-90°	0.4	0.0
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°	763.0	64.3
0°-40°	1030.6	86.8
0°-60°	1175.4	99.0
0°-90°	1187.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1187.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1152	1152	1152	1152	1152	
5°	1140	1140	1140	1140	1141	108
15°	1029	1035	1040	1035	1031	287
25°	788	807	821	812	795	355
35°	355	416	527	416	355	227
45°	117	135	160	133	117	94
55°	24	33	41	33	24	27
65°	7	8	9	8	7	7
75°	3	3	3	3	1	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1152.0	1152.0	1152.0	1152.0	1152.0
2.5°	1149.4	1149.4	1150.7	1149.4	1149.4
5°	1140.0	1140.0	1140.0	1140.0	1141.4
7.5°	1122.7	1124.0	1125.4	1124.0	1125.4
10°	1100.0	1101.4	1102.7	1102.7	1101.4
12.5°	1069.4	1072.0	1074.7	1072.0	1070.7
15°	1029.4	1034.7	1040.0	1034.7	1030.7
17.5°	980.0	985.4	996.0	986.7	982.7
20°	925.4	933.4	942.7	934.7	928.0
22.5°	860.0	874.7	884.0	874.7	865.4
25°	788.0	806.7	821.4	812.0	794.7
27.5°	701.4	733.4	754.7	737.4	705.4
30°	582.7	638.7	684.0	644.0	584.0
32.5°	466.7	525.3	608.0	528.0	469.3
35°	354.7	416.0	526.7	416.0	354.7
37.5°	265.3	320.0	425.3	316.0	265.3
40°	197.3	238.7	318.7	236.0	196.0
42.5°	152.0	177.3	230.7	176.0	150.7
45°	117.3	134.7	160.0	133.3	117.3
47.5°	90.7	102.7	113.3	102.7	89.3
50°	65.3	77.3	81.3	77.3	64.0
52.5°	41.3	54.7	58.7	53.3	42.7
55°	24.0	33.3	41.3	33.3	24.0
57.5°	17.3	20.0	29.3	20.0	17.3
60°	13.3	14.7	18.7	14.7	13.3
62.5°	9.3	10.7	12.0	10.7	9.3
65°	6.7	8.0	9.3	8.0	6.7
67.5°	5.3	6.7	6.7	6.7	5.3
70°	4.0	4.0	5.3	4.0	4.0
72.5°	2.7	2.7	4.0	4.0	2.7
75°	2.7	2.7	2.7	2.7	1.3
77.5°	1.3	1.3	2.7	1.3	1.3
80°	1.3	1.3	1.3	1.3	1.3
82.5°	0.0	1.3	1.3	1.3	0.0
85°	0.0	0.0	0.0	0.0	0.0
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)