

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: P241884

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241884  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-53)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-41SMDMW-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE WHITE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1234.0 lumens  
Efficiency: N/A  
Efficacy: 102.8 lumens/watt  
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.02  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

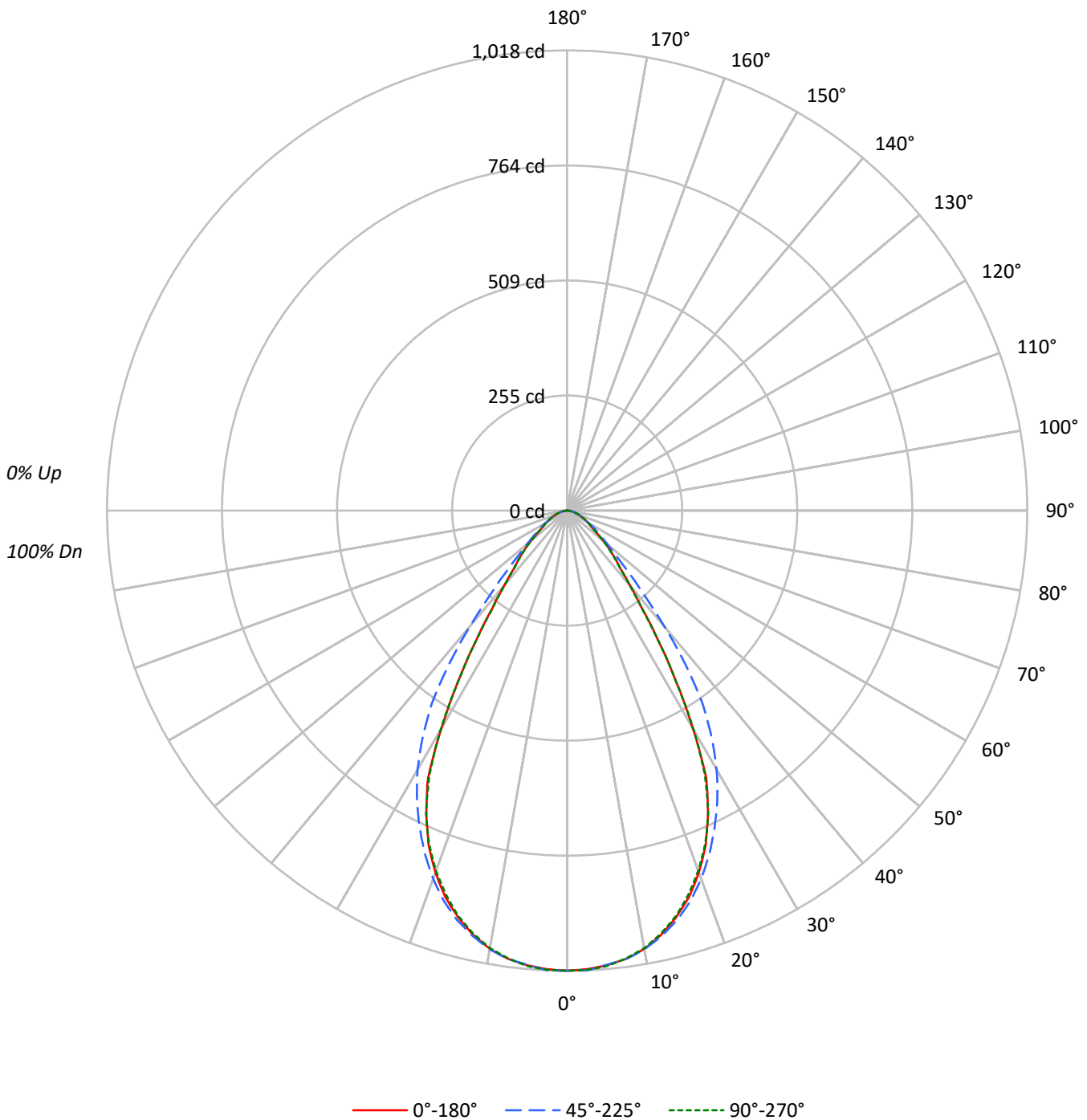
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91					91			
2	105	100	95	91	103	98	93	90	94	91	88	91	88	86	89	86	84	82					82			
3	99	91	85	81	97	90	84	80	87	82	79	85	81	77	82	79	76	74					74			
4	93	84	78	73	91	83	77	72	81	75	71	78	74	70	77	73	70	68					68			
5	87	78	71	66	86	77	70	66	75	69	65	73	68	64	71	67	64	62					62			
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57					57			
7	78	67	60	55	76	66	60	55	65	59	55	64	58	55	62	58	54	53					53			
8	73	63	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49					49			
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	48	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					42			

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

	0°	45°	90°
0°	77921	77921	77921
5°	77596	77497	77704
10°	76504	76605	76395
15°	73823	74362	73609
20°	69400	70606	69066
25°	62261	65226	62379
30°	49168	58475	49522
35°	32798	48824	32798
40°	21583	33453	21313
45°	16226	20318	16075
50°	12539	13825	12384
55°	9195	10636	9195
60°	8068	8481	8068
65°	7100	7335	7100
70°	6043	6356	6356
75°	5590	5590	5590
80°	4761	4761	4761
85°	3601	4742	3601



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.6	7.7
10°-20°	261.6	21.2
20°-30°	343.6	27.8
30°-40°	264.9	21.5
40°-50°	133.2	10.8
50°-60°	70.0	5.7
60°-70°	39.5	3.2
70°-80°	20.1	1.6
80°-90°	5.5	0.4
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°	700.8	56.8
0°-40°	965.7	78.3
0°-60°	1168.8	94.7
0°-90°	1234.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1234.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1018	1018	1018	1018	1018	
5°	1010	1011	1009	1011	1011	96
15°	932	934	938	933	929	261
25°	737	759	772	758	739	333
35°	351	410	522	412	351	225
45°	150	165	188	163	148	118
55°	69	76	80	76	69	65
65°	39	39	40	39	39	39
75°	19	19	19	19	19	20
85°	4	4	5	4	4	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1018.0	1018.0	1018.0	1018.0	1018.0
2.5°	1015.3	1016.7	1018.0	1016.7	1016.7
5°	1009.9	1011.3	1008.6	1011.3	1011.3
7.5°	1000.5	999.1	1000.5	999.1	999.1
10°	984.3	984.3	985.6	982.9	982.9
12.5°	961.3	962.7	964.0	962.7	958.6
15°	931.6	934.3	938.4	933.0	928.9
17.5°	896.5	899.2	906.0	897.9	891.1
20°	852.0	858.7	866.8	858.7	847.9
22.5°	800.7	814.2	822.3	811.5	798.0
25°	737.2	758.8	772.3	757.5	738.6
27.5°	667.0	694.0	719.7	696.7	660.2
30°	556.3	613.0	661.6	615.7	560.3
32.5°	449.6	511.7	595.4	511.7	449.6
35°	351.0	410.5	522.5	411.8	351.0
37.5°	271.4	322.7	430.7	322.7	268.7
40°	216.0	249.8	334.8	248.4	213.3
42.5°	175.5	199.8	248.4	198.5	172.8
45°	149.9	164.7	187.7	163.4	148.5
47.5°	126.9	139.1	143.1	137.7	125.6
50°	105.3	117.5	116.1	116.1	104.0
52.5°	85.1	94.5	95.9	94.5	85.1
55°	68.9	75.6	79.7	75.6	68.9
57.5°	59.4	62.1	67.5	62.1	60.8
60°	52.7	54.0	55.4	54.0	52.7
62.5°	45.9	45.9	45.9	45.9	45.9
65°	39.2	39.2	40.5	39.2	39.2
67.5°	32.4	33.8	33.8	33.8	32.4
70°	27.0	28.4	28.4	28.4	28.4
72.5°	23.0	23.0	23.0	23.0	23.0
75°	18.9	18.9	18.9	18.9	18.9
77.5°	14.9	14.9	14.9	14.9	14.9
80°	10.8	10.8	10.8	10.8	10.8
82.5°	6.8	8.1	8.1	8.1	6.8
85°	4.1	4.1	5.4	4.1	4.1
87.5°	2.7	2.7	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)