

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: P241879

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241879  
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  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP 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: 1219.2 lumens  
Efficiency: N/A  
Efficacy: 101.6 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

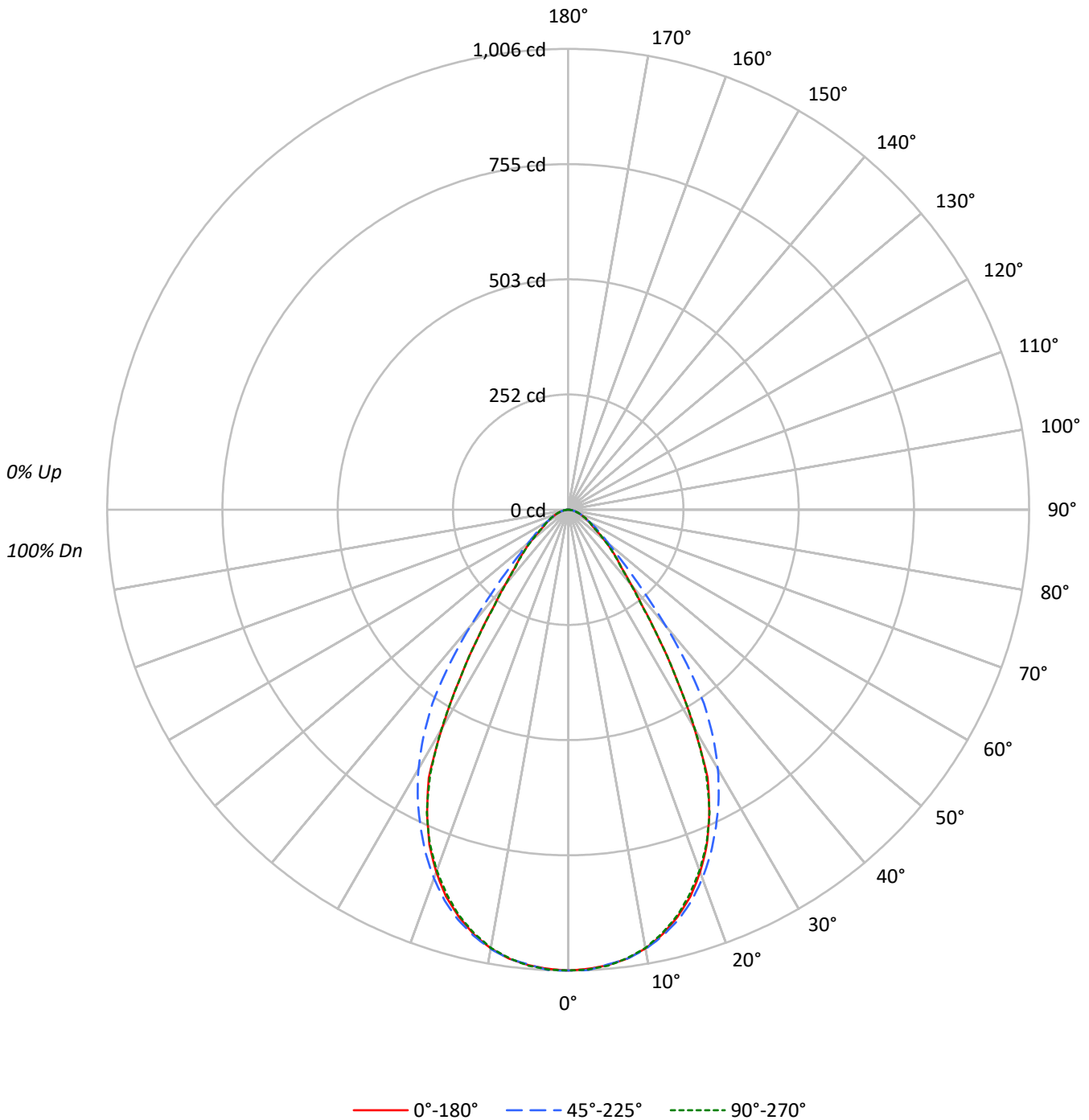
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91				
2	105	100	95	91	103	98	93	90	94	91	88	91	88	86	89	86	84	82				
3	99	91	85	81	97	90	84	80	87	82	79	85	81	77	82	79	76	74				
4	93	84	78	73	91	83	77	72	81	75	71	78	74	70	77	73	70	68				
5	87	78	71	66	86	77	70	66	75	69	65	73	68	64	71	67	64	62				
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57				
7	78	67	60	55	76	66	60	55	65	59	55	64	58	55	62	58	54	53				
8	73	63	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49				
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45				
10	66	55	48	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42				

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

	0°	45°	90°
0°	76995	76995	76995
5°	76674	76567	76774
10°	75587	75688	75486
15°	72944	73475	72730
20°	68569	69759	68244
25°	61518	64449	61628
30°	48576	57777	48930
35°	32406	48244	32406
40°	21323	33054	21063
45°	16032	20069	15880
50°	12396	13659	12230
55°	9075	10502	9075
60°	7961	8374	7961
65°	7009	7245	7009
70°	5975	6266	6266
75°	5530	5530	5530
80°	4717	4717	4717
85°	3513	4655	3513



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.5	7.7
10°-20°	258.5	21.2
20°-30°	339.4	27.8
30°-40°	261.8	21.5
40°-50°	131.6	10.8
50°-60°	69.1	5.7
60°-70°	39.1	3.2
70°-80°	19.9	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°	692.4	56.8
0°-40°	954.1	78.3
0°-60°	1154.8	94.7
0°-90°	1219.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1219.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	998	999	996	999	999	94
15°	920	923	927	922	918	258
25°	728	750	763	748	730	329
35°	347	406	516	407	347	222
45°	148	163	185	161	147	116
55°	68	75	79	75	68	64
65°	39	39	40	39	39	38
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°	1005.9	1005.9	1005.9	1005.9	1005.9
2.5°	1003.2	1004.5	1005.9	1004.5	1004.5
5°	997.9	999.2	996.5	999.2	999.2
7.5°	988.5	987.2	988.5	987.2	987.2
10°	972.5	972.5	973.8	971.2	971.2
12.5°	949.8	951.2	952.5	951.2	947.2
15°	920.5	923.2	927.2	921.8	917.8
17.5°	885.8	888.5	895.1	887.1	880.5
20°	841.8	848.4	856.4	848.4	837.8
22.5°	791.1	804.4	812.4	801.8	788.4
25°	728.4	749.7	763.1	748.4	729.7
27.5°	659.0	685.7	711.0	688.4	652.3
30°	549.6	605.7	653.7	608.3	553.6
32.5°	444.2	505.6	588.3	505.6	444.2
35°	346.8	405.5	516.3	406.9	346.8
37.5°	268.1	318.8	425.6	318.8	265.5
40°	213.4	246.8	330.8	245.5	210.8
42.5°	173.4	197.4	245.5	196.1	170.8
45°	148.1	162.8	185.4	161.4	146.7
47.5°	125.4	137.4	141.4	136.1	124.1
50°	104.1	116.1	114.7	114.7	102.7
52.5°	84.0	93.4	94.7	93.4	84.0
55°	68.0	74.7	78.7	74.7	68.0
57.5°	58.7	61.4	66.7	61.4	60.0
60°	52.0	53.4	54.7	53.4	52.0
62.5°	45.4	45.4	45.4	45.4	45.4
65°	38.7	38.7	40.0	38.7	38.7
67.5°	32.0	33.4	33.4	33.4	32.0
70°	26.7	28.0	28.0	28.0	28.0
72.5°	22.7	22.7	22.7	22.7	22.7
75°	18.7	18.7	18.7	18.7	18.7
77.5°	14.7	14.7	14.7	14.7	14.7
80°	10.7	10.7	10.7	10.7	10.7
82.5°	6.7	8.0	8.0	8.0	6.7
85°	4.0	4.0	5.3	4.0	4.0
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)