

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: P241834

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241834  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-50)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-41SMDMB  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

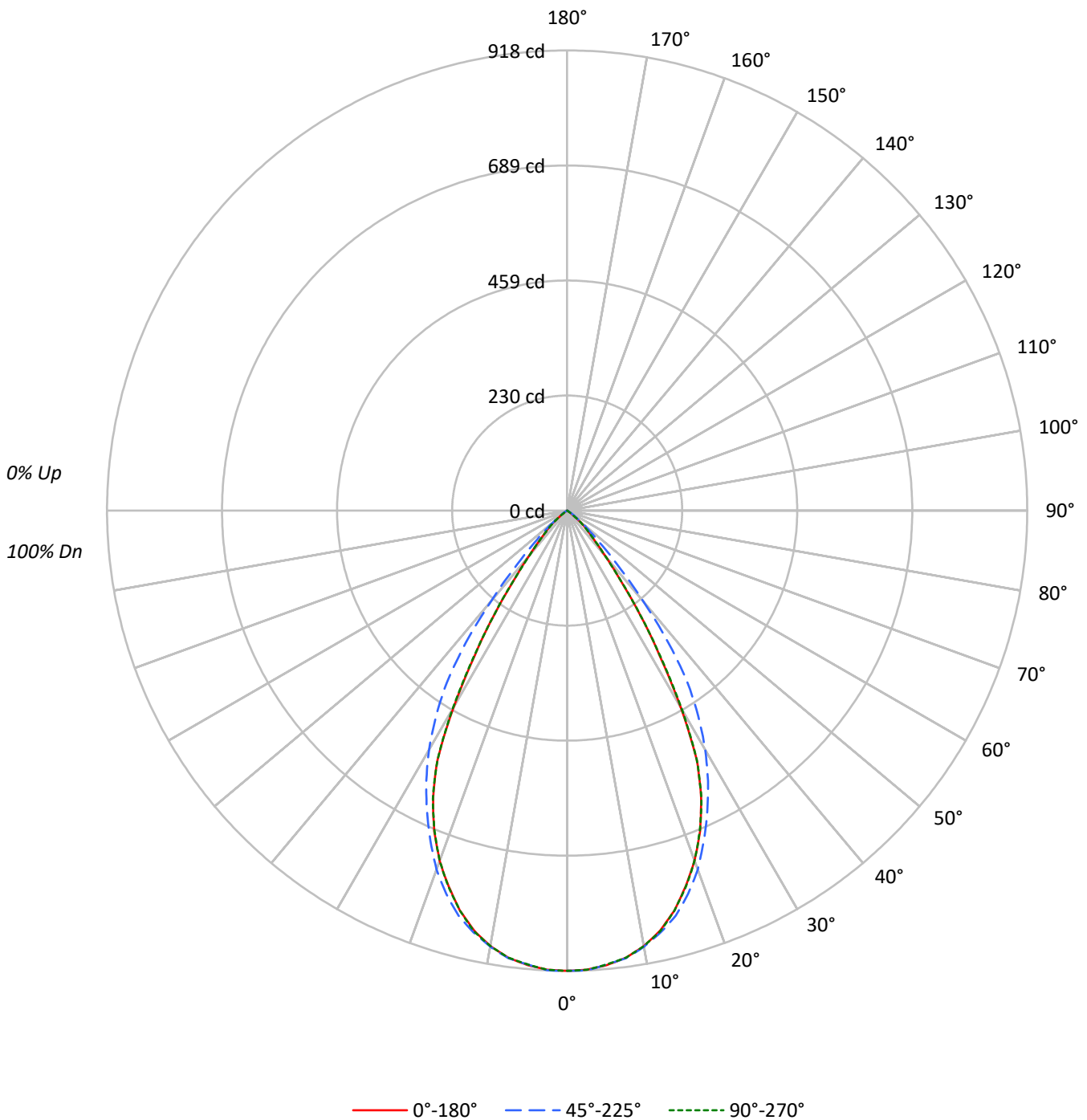
Lumens per Lamp: N/A  
Luminaire Lumens: 889.7 lumens  
Efficiency: N/A  
Efficacy: 74.1 lumens/watt  
Spacing Criteria (0/90/45): 0.95 / 0.95 / 0.98  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	111	108	106	111	109	106	104	104	103	101	101	99	98	97	96	95	93
2	108	103	99	95	106	101	97	94	98	95	92	95	92	90	92	90	88	87
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	80
4	97	89	84	79	95	88	83	79	86	82	78	84	80	77	82	79	76	75
5	92	83	77	73	90	82	77	73	81	76	72	79	75	71	77	74	71	69
6	87	78	72	68	86	77	72	67	76	71	67	74	70	66	73	69	66	65
7	83	73	67	63	81	73	67	63	71	66	62	70	65	62	69	65	62	60
8	78	69	63	59	77	68	62	58	67	62	58	66	61	58	65	61	58	56
9	75	65	59	55	74	64	59	55	63	58	54	62	58	54	62	57	54	53
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	49

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

	0°	45°	90°
0°	70274	70274	70274
5°	69928	69821	69821
10°	68561	68662	68561
15°	65455	66303	65455
20°	60546	62069	60546
25°	53419	55902	53528
30°	40100	48709	40454
35°	23566	39152	23688
40°	11731	23731	11601
45°	6495	10684	6495
50°	3179	4454	3179
55°	173	1962	173
60°	199	413	199
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.0	9.7
10°-20°	232.1	26.1
20°-30°	294.1	33.1
30°-40°	201.7	22.7
40°-50°	65.0	7.3
50°-60°	10.6	1.2
60°-70°	0.3	0.0
70°-80°	0.0	0.0
80°-90°	0.0	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°	612.2	68.8
0°-40°	813.8	91.5
0°-60°	889.4	100.0
0°-90°	889.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	889.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	918	918	918	918	918	
5°	910	911	909	911	909	86
15°	826	831	837	831	826	231
25°	632	651	662	650	634	284
35°	252	311	419	314	254	161
45°	60	75	99	73	60	49
55°	1	8	15	8	1	6
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
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°	918.1	918.1	918.1	918.1	918.1
2.5°	916.7	916.7	918.1	916.7	916.7
5°	910.1	911.4	908.7	911.4	908.7
7.5°	899.4	898.1	900.7	898.1	899.4
10°	882.1	880.7	883.4	880.7	882.1
12.5°	858.0	859.4	862.0	860.7	859.4
15°	826.0	831.3	836.7	831.3	826.0
17.5°	786.0	792.6	802.0	792.6	787.3
20°	743.3	749.9	762.0	751.3	743.3
22.5°	692.6	705.9	712.6	704.6	691.2
25°	632.5	651.2	661.9	649.9	633.8
27.5°	560.5	589.8	608.5	589.8	560.5
30°	453.7	511.1	551.1	511.1	457.7
32.5°	344.3	411.0	487.1	408.3	348.3
35°	252.2	310.9	419.0	313.6	253.5
37.5°	172.1	224.2	330.9	221.5	173.5
40°	117.4	154.8	237.5	153.5	116.1
42.5°	82.7	105.4	157.5	105.4	81.4
45°	60.0	74.7	98.7	73.4	60.0
47.5°	44.0	54.7	61.4	53.4	42.7
50°	26.7	37.4	37.4	37.4	26.7
52.5°	12.0	21.4	22.7	21.4	12.0
55°	1.3	8.0	14.7	8.0	1.3
57.5°	1.3	1.3	8.0	1.3	1.3
60°	1.3	1.3	2.7	1.3	1.3
62.5°	0.0	0.0	1.3	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	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)