

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: P241829

Luminaire Tested: **PRS415D010-S4M12-41SMDMB-3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241829  
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-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 858.9 lumens  
Efficiency: N/A  
Efficacy: 71.6 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

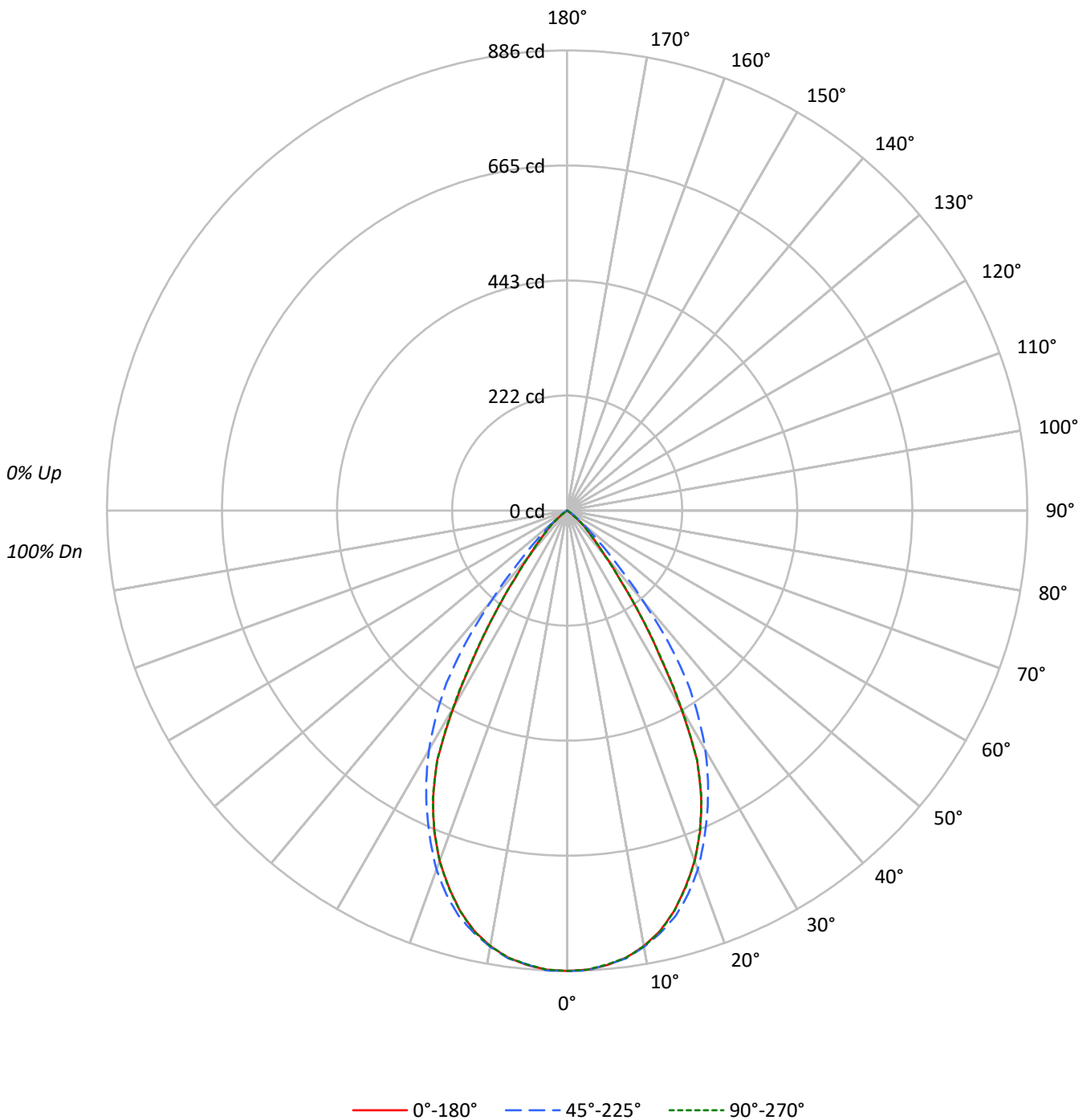
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	67840	67840	67840
5°	67508	67408	67408
10°	66182	66283	66182
15°	63189	64005	63189
20°	58453	59919	58453
25°	51569	53968	51679
30°	38712	47021	39057
35°	22753	37797	22875
40°	11331	22912	11201
45°	6278	10316	6278
50°	3072	4299	3072
55°	173	1895	173
60°	199	398	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°	83.0	9.7
10°-20°	224.1	26.1
20°-30°	283.9	33.1
30°-40°	194.7	22.7
40°-50°	62.8	7.3
50°-60°	10.2	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°	591.0	68.8
0°-40°	785.7	91.5
0°-60°	858.7	100.0
0°-90°	858.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	858.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	879	880	877	880	877	83
15°	797	803	808	803	797	223
25°	611	629	639	627	612	274
35°	244	300	404	303	245	156
45°	58	72	95	71	58	48
55°	1	8	14	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°	886.3	886.3	886.3	886.3	886.3
2.5°	885.0	885.0	886.3	885.0	885.0
5°	878.6	879.9	877.3	879.9	877.3
7.5°	868.3	867.0	869.6	867.0	868.3
10°	851.5	850.2	852.8	850.2	851.5
12.5°	828.3	829.6	832.2	830.9	829.6
15°	797.4	802.6	807.7	802.6	797.4
17.5°	758.8	765.2	774.2	765.2	760.1
20°	717.6	724.0	735.6	725.3	717.6
22.5°	668.6	681.5	687.9	680.2	667.3
25°	610.6	628.7	639.0	627.4	611.9
27.5°	541.1	569.4	587.4	569.4	541.1
30°	438.0	493.4	532.0	493.4	441.9
32.5°	332.4	396.8	470.2	394.2	336.2
35°	243.5	300.2	404.5	302.7	244.8
37.5°	166.2	216.4	319.5	213.8	167.5
40°	113.4	149.4	229.3	148.1	112.1
42.5°	79.9	101.8	152.0	101.8	78.6
45°	58.0	72.1	95.3	70.9	58.0
47.5°	42.5	52.8	59.3	51.5	41.2
50°	25.8	36.1	36.1	36.1	25.8
52.5°	11.6	20.6	21.9	20.6	11.6
55°	1.3	7.7	14.2	7.7	1.3
57.5°	1.3	1.3	7.7	1.3	1.3
60°	1.3	1.3	2.6	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)