

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: P252939

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252939  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1805-776-2)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-41SWDC-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM SPECULAR  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1206.1 lumens  
Efficiency: N/A  
Efficacy: 100.5 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.1 / 1.15  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

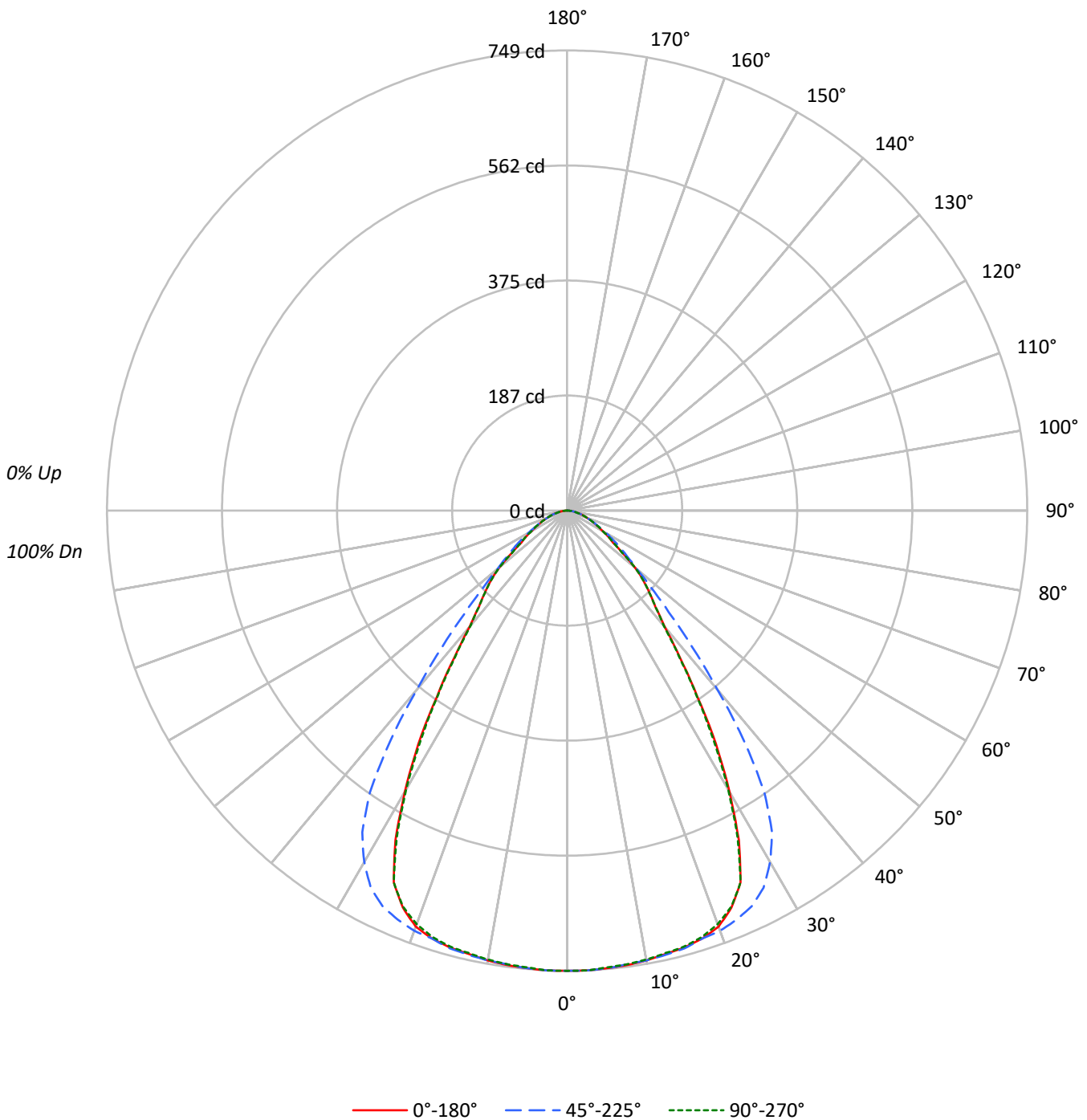
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	86	90	86	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72					72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53					53			
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	47	43	53	47	43	52	47	42	51	46	42	41					41			
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38					38			

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

	0°	45°	90°
0°	57346	57346	57346
5°	57458	57458	57343
10°	57788	57788	57671
15°	58347	58466	58236
20°	58697	59284	58355
25°	56400	60023	56400
30°	46667	58396	46287
35°	34536	52272	34265
40°	24670	38070	24381
45°	20546	25330	20546
50°	17159	17672	17159
55°	12184	14092	12384
60°	10272	11145	10272
65°	8784	9038	8784
70°	7654	7654	7654
75°	6743	6743	6743
80°	5642	5642	5642
85°	5006	5006	5006



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.2	5.9
10°-20°	208.0	17.2
20°-30°	310.9	25.8
30°-40°	276.7	22.9
40°-50°	164.7	13.7
50°-60°	93.3	7.7
60°-70°	50.0	4.1
70°-80°	24.5	2.0
80°-90°	6.8	0.6
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°	590.1	48.9
0°-40°	866.9	71.9
0°-60°	1124.8	93.3
0°-90°	1206.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1206.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	749	749	749	749	749	
5°	748	748	748	748	746	71
15°	736	736	738	735	735	208
25°	668	686	711	685	668	298
35°	370	432	559	431	367	233
45°	190	204	234	203	190	147
55°	91	101	106	101	93	87
65°	48	50	50	50	48	49
75°	23	23	23	23	23	25
85°	6	6	6	6	6	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	749.2	749.2	749.2	749.2	749.2
2.5°	749.2	749.2	749.2	749.2	749.2
5°	747.8	747.8	747.8	747.8	746.3
7.5°	746.3	744.9	744.9	744.9	744.9
10°	743.5	743.5	743.5	742.0	742.0
12.5°	739.2	739.2	740.6	739.2	737.8
15°	736.3	736.3	737.8	734.9	734.9
17.5°	730.6	732.1	730.6	730.6	727.8
20°	720.6	724.9	727.8	723.5	716.4
22.5°	699.2	710.7	720.6	709.2	697.8
25°	667.8	686.4	710.7	685.0	667.8
27.5°	605.1	652.1	692.1	647.9	600.8
30°	528.0	585.1	660.7	580.8	523.7
32.5°	450.9	508.0	620.7	505.2	443.8
35°	369.6	432.4	559.4	431.0	366.7
37.5°	301.1	358.2	473.8	355.3	298.2
40°	246.9	291.1	381.0	289.7	244.0
42.5°	212.6	236.9	301.1	235.5	212.6
45°	189.8	204.1	234.0	202.6	189.8
47.5°	168.4	179.8	184.1	178.4	168.4
50°	144.1	157.0	148.4	157.0	144.1
52.5°	114.2	129.9	124.1	131.3	112.7
55°	91.3	101.3	105.6	101.3	92.8
57.5°	79.9	82.8	88.5	82.8	79.9
60°	67.1	69.9	72.8	69.9	67.1
62.5°	57.1	59.9	59.9	59.9	58.5
65°	48.5	49.9	49.9	49.9	48.5
67.5°	41.4	41.4	41.4	41.4	41.4
70°	34.2	34.2	34.2	34.2	34.2
72.5°	28.5	28.5	28.5	28.5	28.5
75°	22.8	22.8	22.8	22.8	22.8
77.5°	18.6	18.6	17.1	18.6	17.1
80°	12.8	12.8	12.8	12.8	12.8
82.5°	10.0	10.0	10.0	10.0	10.0
85°	5.7	5.7	5.7	5.7	5.7
87.5°	2.9	2.9	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)