

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: P241974

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241974  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-59)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-41SMDC-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM 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: 1269.0 lumens  
Efficiency: N/A  
Efficacy: 105.8 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.82 / 0.85  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

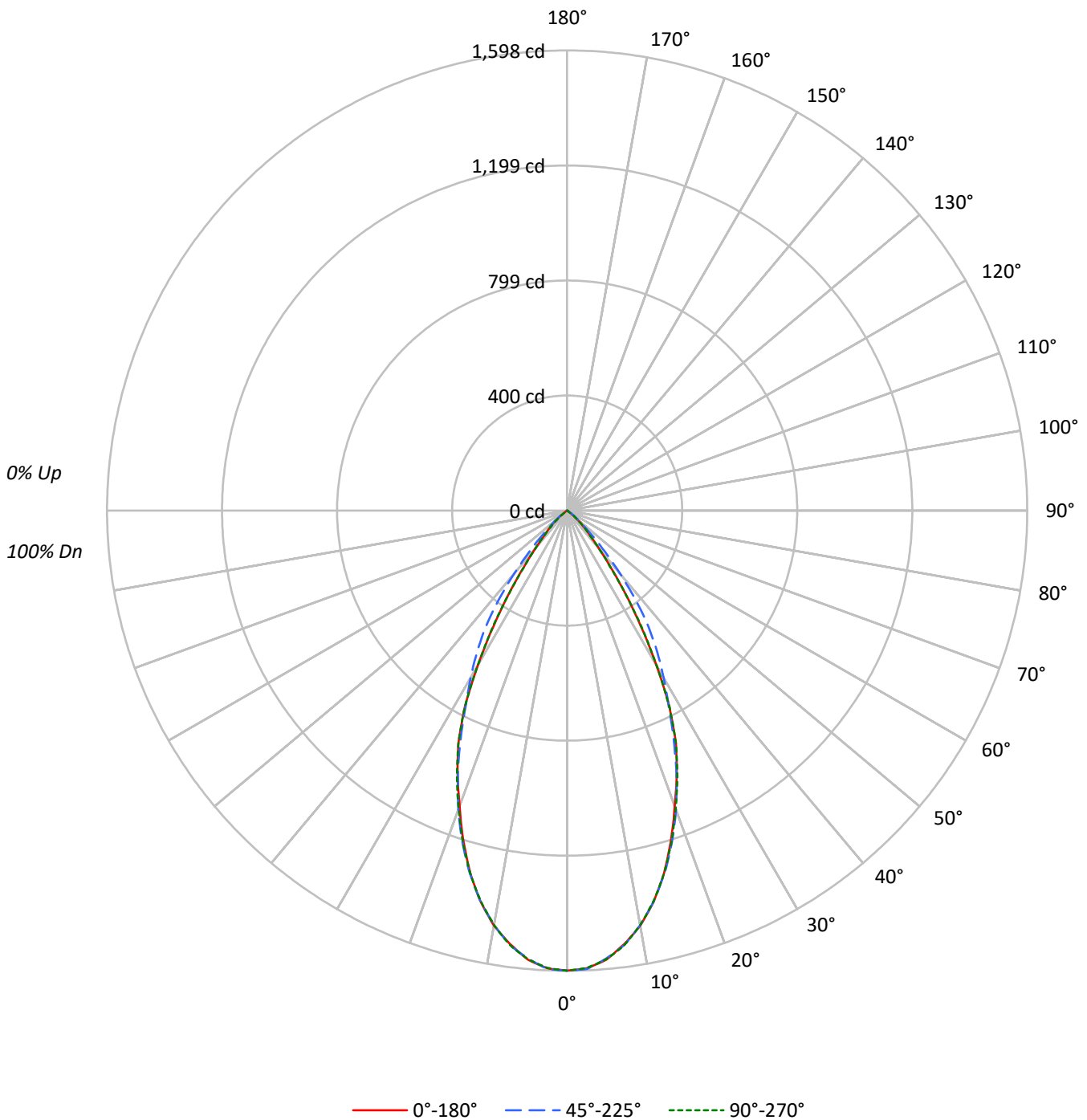
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94					94			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87					87			
3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81					81			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76					76			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71					71			
6	88	79	73	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66					66			
7	84	75	69	65	83	74	68	64	73	68	64	72	67	64	70	66	63	62					62			
8	80	70	65	61	79	70	64	60	69	64	60	68	63	60	67	63	60	58					58			
9	76	67	61	57	75	66	61	57	65	60	57	64	60	56	63	59	56	55					55			
10	73	63	57	54	72	63	57	53	62	57	53	61	56	53	60	56	53	52					52			

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

	0°	45°	90°
0°	122293	122293	122293
5°	120271	119964	120171
10°	113796	113586	113586
15°	103191	103405	103191
20°	88925	90025	89691
25°	75445	73849	75445
30°	54860	59156	54745
35°	32910	46020	32789
40°	17126	28317	16986
45°	9353	13434	9060
50°	4180	5621	4013
55°	360	2335	173
60°	199	612	199
65°	0	235	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°	146.0	11.5
10°-20°	361.7	28.5
20°-30°	403.2	31.8
30°-40°	259.6	20.5
40°-50°	84.6	6.7
50°-60°	13.2	1.0
60°-70°	0.6	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°	911.0	71.8
0°-40°	1170.5	92.2
0°-60°	1268.4	100.0
0°-90°	1269.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1269.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1598	1598	1598	1598	1598	
5°	1565	1565	1561	1567	1564	146
15°	1302	1302	1305	1305	1302	361
25°	893	892	874	892	893	400
35°	352	406	492	405	351	225
45°	86	98	124	96	84	70
55°	3	11	18	11	1	8
65°	0	0	1	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°	1597.7	1597.7	1597.7	1597.7	1597.7
2.5°	1591.0	1592.3	1593.7	1592.3	1589.6
5°	1565.3	1565.3	1561.3	1566.7	1564.0
7.5°	1518.1	1519.5	1522.2	1519.5	1522.2
10°	1464.1	1461.4	1461.4	1461.4	1461.4
12.5°	1389.9	1388.6	1389.9	1388.6	1388.6
15°	1302.2	1302.2	1304.9	1304.9	1302.2
17.5°	1199.6	1202.3	1209.1	1207.7	1205.0
20°	1091.7	1097.1	1105.2	1098.4	1101.1
22.5°	994.5	989.1	991.8	989.1	999.9
25°	893.3	892.0	874.4	892.0	893.3
27.5°	769.2	788.1	762.4	789.4	769.2
30°	620.7	668.0	669.3	673.4	619.4
32.5°	476.3	531.7	581.6	534.4	481.7
35°	352.2	406.2	492.5	404.8	350.9
37.5°	245.6	294.2	390.0	292.8	242.9
40°	171.4	203.8	283.4	205.1	170.0
42.5°	120.1	141.7	193.0	137.6	118.7
45°	86.4	98.5	124.1	95.8	83.7
47.5°	59.4	68.8	76.9	67.5	58.0
50°	35.1	45.9	47.2	45.9	33.7
52.5°	16.2	25.6	29.7	25.6	16.2
55°	2.7	10.8	17.5	10.8	1.3
57.5°	1.3	1.3	9.4	1.3	1.3
60°	1.3	1.3	4.0	1.3	1.3
62.5°	1.3	1.3	1.3	1.3	1.3
65°	0.0	0.0	1.3	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)