

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: P252883

Luminaire Tested: **PRS410D010-S4M12-44SWDH-3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252883  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1804-748-2)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS410D010-S4M12-44SWDH-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, SHALLOW TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 929.1 lumens  
Efficiency: N/A  
Efficacy: 92.9 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.41  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

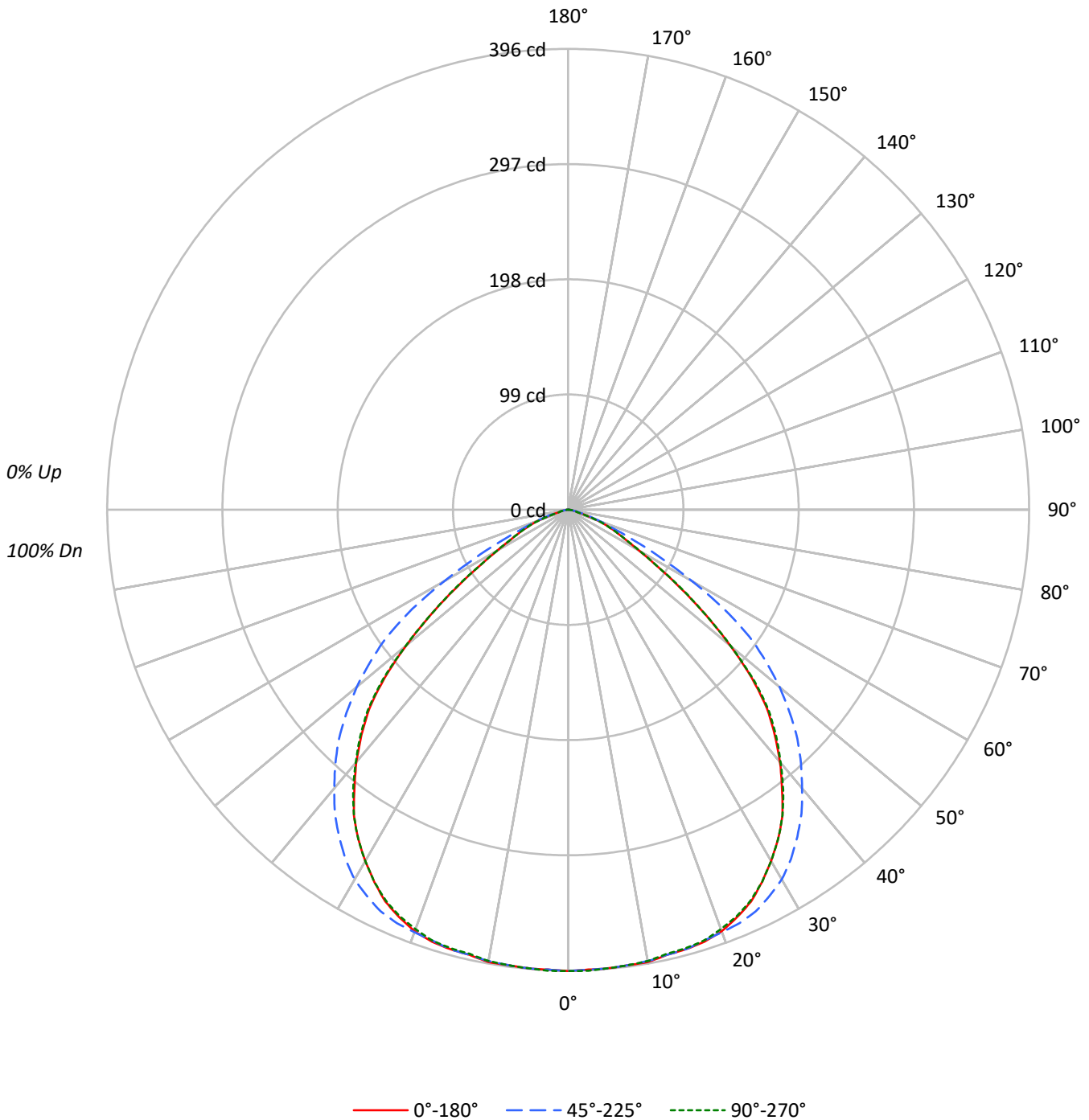
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	85	82	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	61	59
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	52
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	46
7	70	57	49	44	68	57	49	43	55	48	43	54	47	43	52	47	43	41
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

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

	0°	45°	90°
0°	30349	30349	30349
5°	30396	30396	30396
10°	30678	30608	30608
15°	30984	30984	30913
20°	31401	31475	31246
25°	31384	32169	31308
30°	30811	32437	30811
35°	29986	32060	29986
40°	28287	31235	28377
45°	26153	30147	26359
50°	21637	28222	21744
55°	15880	25355	16001
60°	10731	18784	10869
65°	8186	11356	8186
70°	5975	6401	5774
75°	2455	3549	2455
80°	2028	2028	2028
85°	1581	1581	1581



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.7	4.1
10°-20°	110.5	11.9
20°-30°	172.6	18.6
30°-40°	206.5	22.2
40°-50°	198.4	21.4
50°-60°	133.3	14.3
60°-70°	54.4	5.9
70°-80°	13.5	1.5
80°-90°	2.1	0.2
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°	320.8	34.5
0°-40°	527.3	56.8
0°-60°	859.0	92.5
0°-90°	929.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	929.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	396	396	396	396	396	
5°	396	396	396	396	396	38
15°	391	391	391	390	390	111
25°	372	375	381	374	371	171
35°	321	330	343	331	321	199
45°	242	259	278	260	244	183
55°	119	144	190	145	120	108
65°	45	51	63	51	45	46
75°	8	9	12	9	8	12
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	396.5	396.5	396.5	396.5	396.5
2.5°	395.6	395.6	395.6	396.5	396.5
5°	395.6	395.6	395.6	395.6	395.6
7.5°	394.7	394.7	394.7	394.7	394.7
10°	394.7	393.8	393.8	393.8	393.8
12.5°	391.9	391.9	391.9	391.9	391.0
15°	391.0	391.0	391.0	390.1	390.1
17.5°	389.2	389.2	388.2	388.2	388.2
20°	385.5	386.4	386.4	385.5	383.6
22.5°	379.0	381.8	384.6	380.9	378.1
25°	371.6	375.3	380.9	374.4	370.7
27.5°	360.6	366.1	374.4	366.1	360.6
30°	348.6	356.0	367.0	356.0	348.6
32.5°	335.7	344.0	356.0	344.0	335.7
35°	320.9	330.1	343.1	331.1	320.9
37.5°	301.6	314.5	329.2	316.3	303.4
40°	283.1	296.9	312.6	297.9	284.0
42.5°	262.8	278.5	296.0	279.4	264.7
45°	241.6	259.1	278.5	260.1	243.5
47.5°	213.9	235.2	258.2	237.9	215.8
50°	181.7	208.4	237.0	210.3	182.6
52.5°	149.4	175.2	213.9	177.1	149.4
55°	119.0	143.9	190.0	144.8	119.9
57.5°	91.3	113.4	158.6	115.3	91.3
60°	70.1	86.7	122.7	87.6	71.0
62.5°	55.3	65.5	90.4	64.6	55.3
65°	45.2	50.7	62.7	50.7	45.2
67.5°	36.0	39.7	41.5	39.7	36.0
70°	26.7	30.4	28.6	30.4	25.8
72.5°	15.7	19.4	19.4	19.4	14.8
75°	8.3	9.2	12.0	9.2	8.3
77.5°	6.5	6.5	7.4	6.5	6.5
80°	4.6	4.6	4.6	4.6	4.6
82.5°	2.8	2.8	2.8	2.8	2.8
85°	1.8	1.8	1.8	1.8	1.8
87.5°	0.9	0.9	0.9	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)