

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: P252868

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252868  
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-S4M12-44SWDC-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, SHALLOW TRIM SPECULAR  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 937.5 lumens  
Efficiency: N/A  
Efficacy: 93.7 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

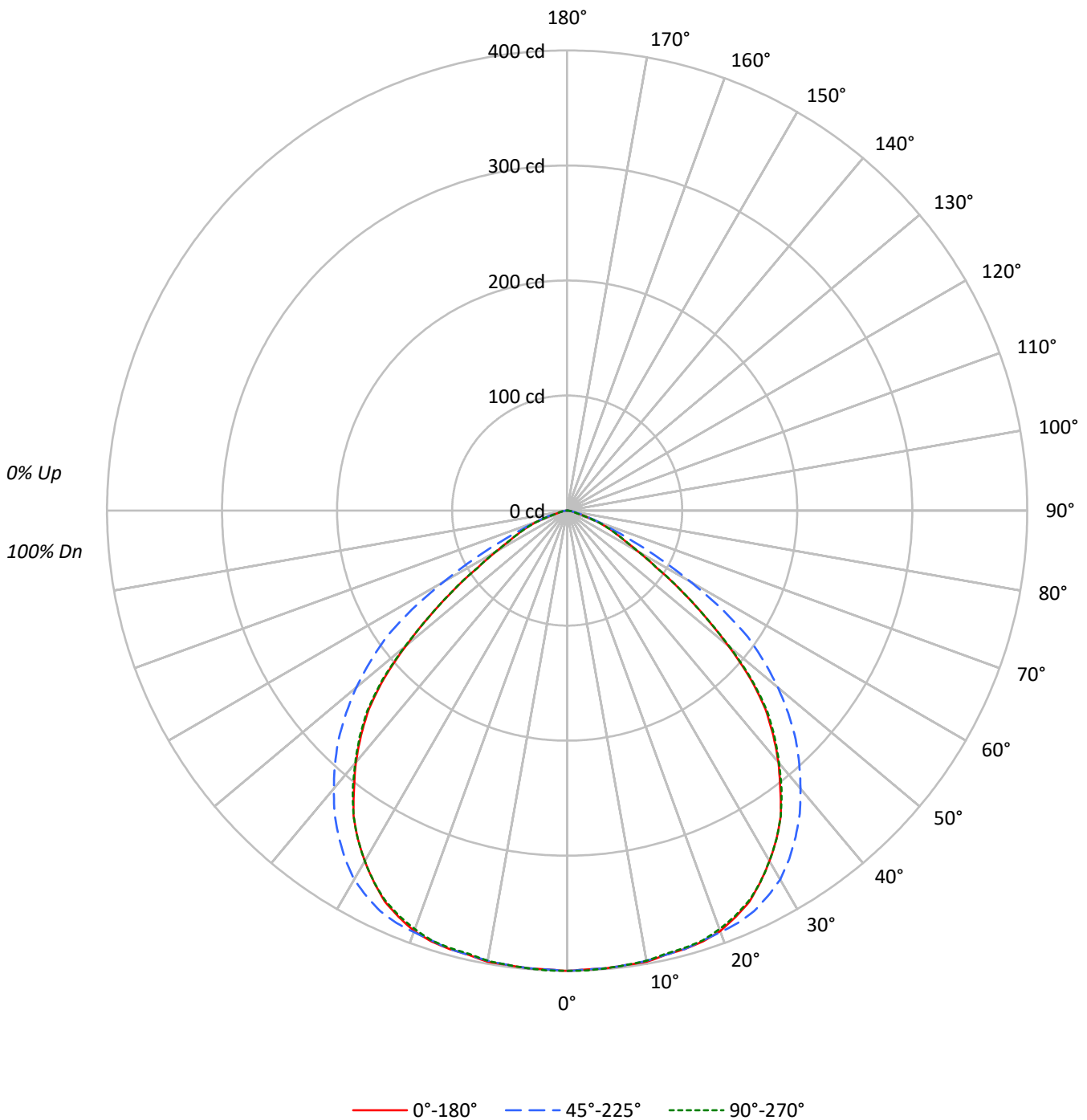
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	30625	30625	30625
5°	30673	30673	30673
10°	30958	30888	30888
15°	31270	31270	31190
20°	31686	31760	31532
25°	31671	32457	31595
30°	31094	32738	31094
35°	30257	32350	30257
40°	28547	31525	28637
45°	26391	30418	26597
50°	21827	28484	21947
55°	16014	25582	16147
60°	10823	18952	10976
65°	8259	11465	8259
70°	6043	6445	5841
75°	2484	3578	2484
80°	2072	2072	2072
85°	1669	1669	1669



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.0	4.1
10°-20°	111.5	11.9
20°-30°	174.2	18.6
30°-40°	208.3	22.2
40°-50°	200.2	21.4
50°-60°	134.5	14.3
60°-70°	54.9	5.9
70°-80°	13.6	1.5
80°-90°	2.2	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°	323.7	34.5
0°-40°	532.1	56.8
0°-60°	866.8	92.5
0°-90°	937.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	937.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	400	400	400	400	400	
5°	399	399	399	399	399	38
15°	395	395	395	394	394	112
25°	375	379	384	378	374	172
35°	324	333	346	334	324	201
45°	244	262	281	262	246	185
55°	120	145	192	146	121	109
65°	46	51	63	51	46	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°	400.1	400.1	400.1	400.1	400.1
2.5°	399.2	399.2	399.2	400.1	400.1
5°	399.2	399.2	399.2	399.2	399.2
7.5°	398.3	398.3	398.3	398.3	398.3
10°	398.3	397.4	397.4	397.4	397.4
12.5°	395.5	395.5	395.5	395.5	394.6
15°	394.6	394.6	394.6	393.6	393.6
17.5°	392.7	392.7	391.8	391.8	391.8
20°	389.0	389.9	389.9	389.0	387.1
22.5°	382.5	385.3	388.0	384.3	381.5
25°	375.0	378.7	384.3	377.8	374.1
27.5°	363.9	369.4	377.8	369.4	363.9
30°	351.8	359.2	370.4	359.2	351.8
32.5°	338.7	347.1	359.2	347.1	338.7
35°	323.8	333.1	346.2	334.1	323.8
37.5°	304.3	317.3	332.2	319.2	306.2
40°	285.7	299.6	315.5	300.6	286.6
42.5°	265.2	281.0	298.7	282.0	267.1
45°	243.8	261.5	281.0	262.4	245.7
47.5°	215.9	237.3	260.6	240.1	217.8
50°	183.3	210.3	239.2	212.2	184.3
52.5°	150.8	176.8	215.9	178.7	150.8
55°	120.0	145.2	191.7	146.1	121.0
57.5°	92.1	114.5	160.1	116.3	92.1
60°	70.7	87.5	123.8	88.4	71.7
62.5°	55.8	66.1	91.2	65.1	55.8
65°	45.6	51.2	63.3	51.2	45.6
67.5°	36.3	40.0	41.9	40.0	36.3
70°	27.0	30.7	28.8	30.7	26.1
72.5°	15.8	19.5	19.5	19.5	14.9
75°	8.4	9.3	12.1	9.3	8.4
77.5°	6.5	6.5	7.4	6.5	6.5
80°	4.7	4.7	4.7	4.7	4.7
82.5°	2.8	2.8	2.8	2.8	2.8
85°	1.9	1.9	1.9	1.9	1.9
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)