

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: P252948

Luminaire Tested: **PRS410D010-S4M12-41SWDH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252948  
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: PRS410D010-S4M12-41SWDH  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 830.3 lumens  
Efficiency: N/A  
Efficacy: 83.0 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

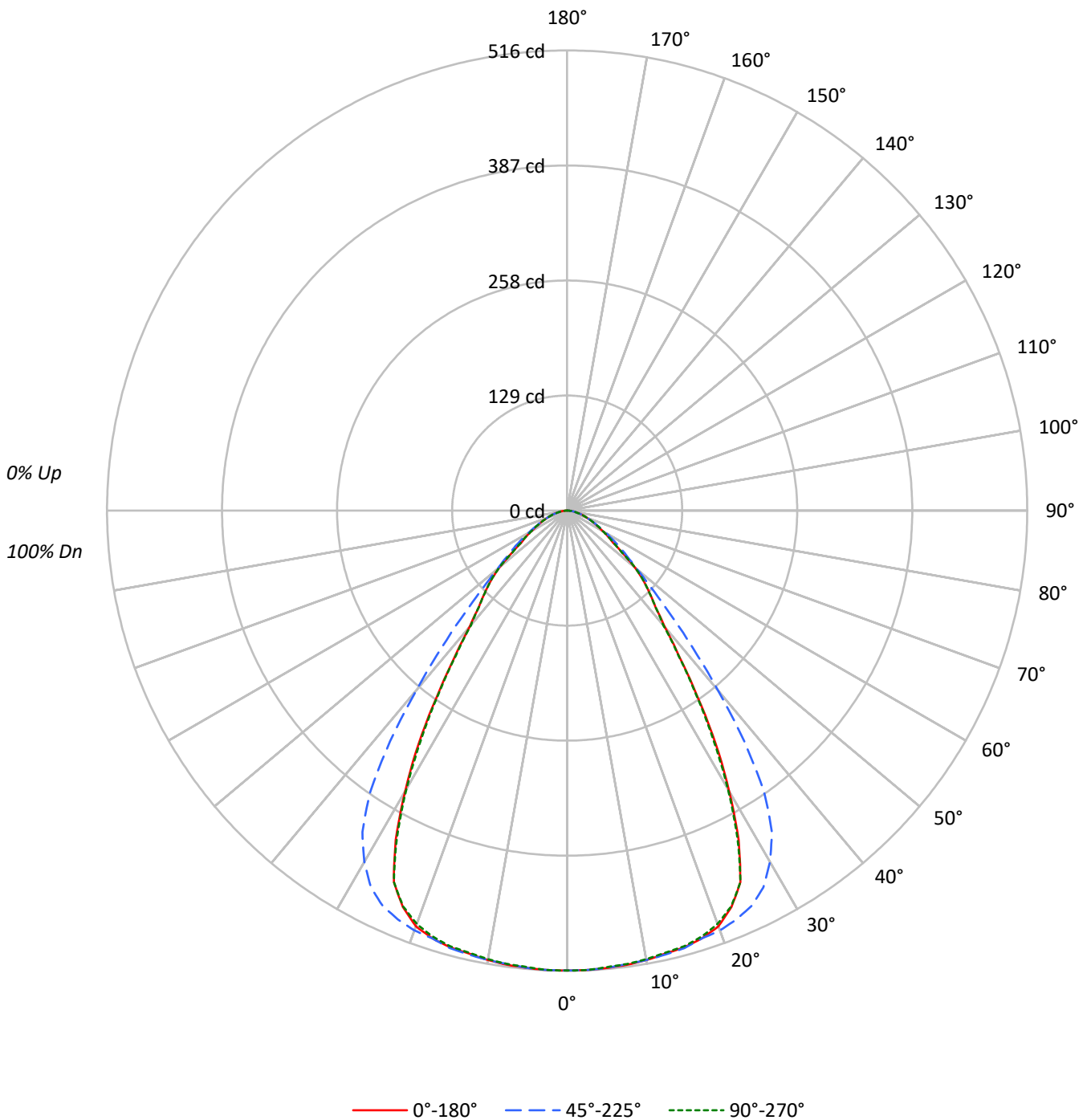
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	39473	39473	39473
5°	39547	39547	39478
10°	39779	39779	39702
15°	40169	40248	40089
20°	40410	40809	40166
25°	38825	41316	38825
30°	32128	40197	31863
35°	23772	35985	23594
40°	16976	26209	16787
45°	14137	17439	14137
50°	11813	12170	11813
55°	8394	9702	8527
60°	7073	7670	7073
65°	6049	6230	6049
70°	5282	5282	5282
75°	4643	4643	4643
80°	3879	3879	3879
85°	3425	3425	3425



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.0	5.9
10°-20°	143.2	17.2
20°-30°	214.0	25.8
30°-40°	190.5	22.9
40°-50°	113.4	13.7
50°-60°	64.2	7.7
60°-70°	34.4	4.1
70°-80°	16.9	2.0
80°-90°	4.7	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°	406.2	48.9
0°-40°	596.7	71.9
0°-60°	774.3	93.3
0°-90°	830.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	830.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	516	516	516	516	516	
5°	515	515	515	515	514	49
15°	507	507	508	506	506	143
25°	460	472	489	472	460	205
35°	254	298	385	297	252	161
45°	131	140	161	140	131	101
55°	63	70	73	70	64	60
65°	33	34	34	34	33	34
75°	16	16	16	16	16	17
85°	4	4	4	4	4	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	515.7	515.7	515.7	515.7	515.7
2.5°	515.7	515.7	515.7	515.7	515.7
5°	514.7	514.7	514.7	514.7	513.8
7.5°	513.8	512.8	512.8	512.8	512.8
10°	511.8	511.8	511.8	510.8	510.8
12.5°	508.8	508.8	509.8	508.8	507.9
15°	506.9	506.9	507.9	505.9	505.9
17.5°	502.9	503.9	502.9	502.9	501.0
20°	496.1	499.0	501.0	498.0	493.1
22.5°	481.3	489.2	496.1	488.2	480.4
25°	459.7	472.5	489.2	471.5	459.7
27.5°	416.5	448.9	476.4	446.0	413.6
30°	363.5	402.7	454.8	399.8	360.5
32.5°	310.4	349.7	427.3	347.7	305.5
35°	254.4	297.6	385.1	296.7	252.5
37.5°	207.3	246.6	326.1	244.6	205.3
40°	169.9	200.4	262.3	199.4	168.0
42.5°	146.4	163.1	207.3	162.1	146.4
45°	130.6	140.5	161.1	139.5	130.6
47.5°	115.9	123.8	126.7	122.8	115.9
50°	99.2	108.1	102.2	108.1	99.2
52.5°	78.6	89.4	85.5	90.4	77.6
55°	62.9	69.7	72.7	69.7	63.9
57.5°	55.0	57.0	60.9	57.0	55.0
60°	46.2	48.1	50.1	48.1	46.2
62.5°	39.3	41.3	41.3	41.3	40.3
65°	33.4	34.4	34.4	34.4	33.4
67.5°	28.5	28.5	28.5	28.5	28.5
70°	23.6	23.6	23.6	23.6	23.6
72.5°	19.6	19.6	19.6	19.6	19.6
75°	15.7	15.7	15.7	15.7	15.7
77.5°	12.8	12.8	11.8	12.8	11.8
80°	8.8	8.8	8.8	8.8	8.8
82.5°	6.9	6.9	6.9	6.9	6.9
85°	3.9	3.9	3.9	3.9	3.9
87.5°	2.0	2.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)