

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: P252938

Luminaire Tested: **PRS410D010-S4M12-41SWDC-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252938
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-S4M12-41SWDC-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: 904.2 lumens
Efficiency: N/A
Efficacy: 90.4 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

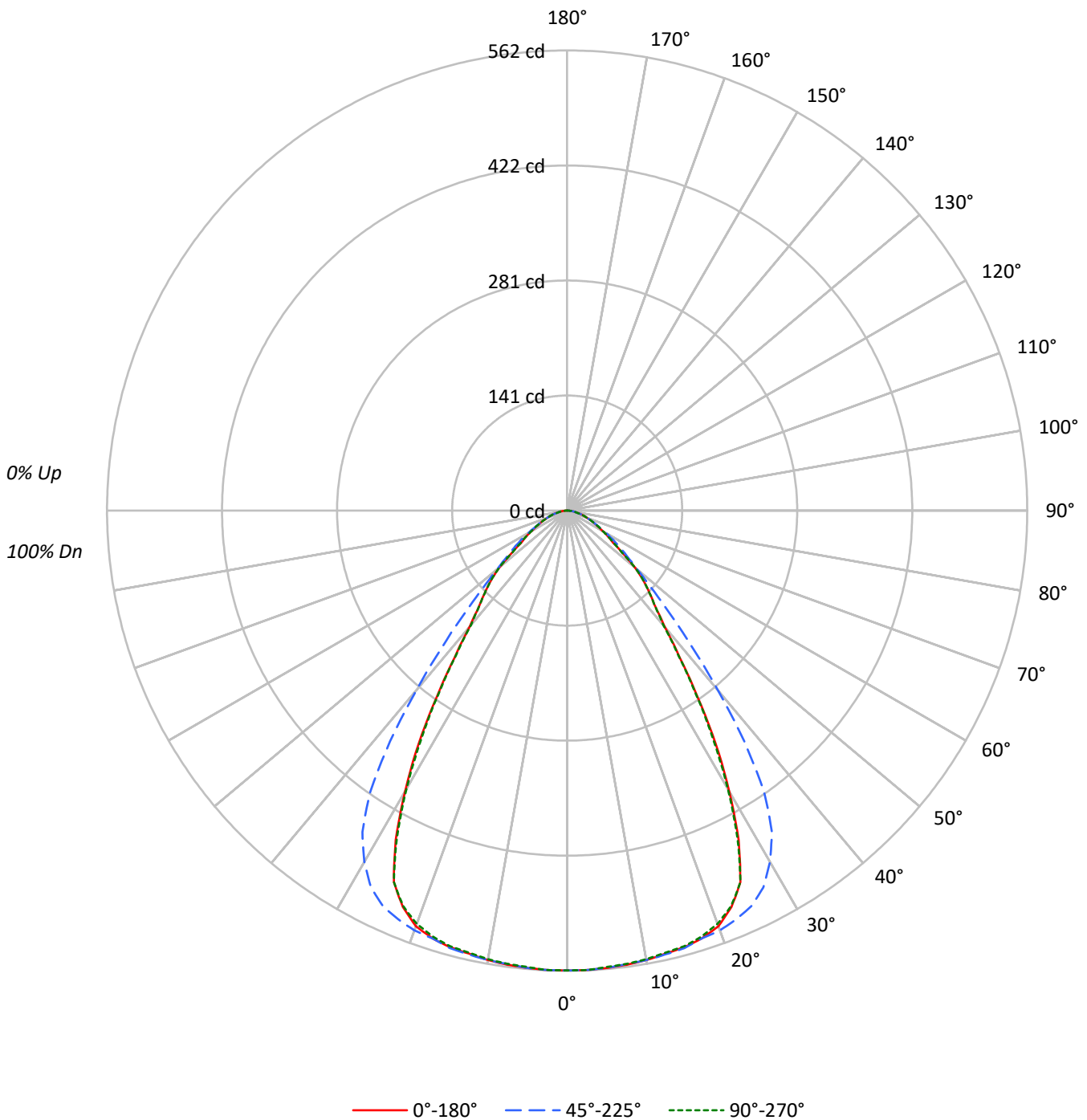
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42987	42987	42987
5°	43074	43074	42990
10°	43323	43323	43238
15°	43742	43830	43655
20°	44002	44442	43742
25°	42287	44998	42287
30°	34983	43777	34700
35°	25893	39190	25687
40°	18495	28537	18275
45°	15404	18987	15404
50°	12861	13254	12861
55°	9141	10569	9275
60°	7700	8359	7700
65°	6593	6774	6593
70°	5752	5752	5752
75°	5057	5057	5057
80°	4232	4232	4232
85°	3776	3776	3776



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.4	5.9
10°-20°	156.0	17.2
20°-30°	233.1	25.8
30°-40°	207.5	22.9
40°-50°	123.5	13.7
50°-60°	69.9	7.7
60°-70°	37.5	4.1
70°-80°	18.4	2.0
80°-90°	5.1	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°	442.4	48.9
0°-40°	649.9	71.9
0°-60°	843.3	93.3
0°-90°	904.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	904.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	562	562	562	562	562	
5°	561	561	561	561	560	53
15°	552	552	553	551	551	156
25°	501	515	533	514	501	223
35°	277	324	419	323	275	175
45°	142	153	175	152	142	110
55°	68	76	79	76	70	65
65°	36	37	37	37	36	37
75°	17	17	17	17	17	18
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°	561.6	561.6	561.6	561.6	561.6
2.5°	561.6	561.6	561.6	561.6	561.6
5°	560.6	560.6	560.6	560.6	559.5
7.5°	559.5	558.4	558.4	558.4	558.4
10°	557.4	557.4	557.4	556.3	556.3
12.5°	554.2	554.2	555.2	554.2	553.1
15°	552.0	552.0	553.1	550.9	550.9
17.5°	547.7	548.8	547.7	547.7	545.6
20°	540.2	543.5	545.6	542.4	537.0
22.5°	524.2	532.8	540.2	531.7	523.1
25°	500.7	514.6	532.8	513.5	500.7
27.5°	453.6	488.9	518.8	485.7	450.4
30°	395.8	438.6	495.3	435.4	392.6
32.5°	338.1	380.8	465.4	378.7	332.7
35°	277.1	324.1	419.4	323.1	274.9
37.5°	225.7	268.5	355.2	266.4	223.6
40°	185.1	218.2	285.6	217.2	182.9
42.5°	159.4	177.6	225.7	176.5	159.4
45°	142.3	153.0	175.4	151.9	142.3
47.5°	126.2	134.8	138.0	133.7	126.2
50°	108.0	117.7	111.3	117.7	108.0
52.5°	85.6	97.4	93.1	98.4	84.5
55°	68.5	76.0	79.2	76.0	69.5
57.5°	59.9	62.0	66.3	62.0	59.9
60°	50.3	52.4	54.6	52.4	50.3
62.5°	42.8	44.9	44.9	44.9	43.9
65°	36.4	37.4	37.4	37.4	36.4
67.5°	31.0	31.0	31.0	31.0	31.0
70°	25.7	25.7	25.7	25.7	25.7
72.5°	21.4	21.4	21.4	21.4	21.4
75°	17.1	17.1	17.1	17.1	17.1
77.5°	13.9	13.9	12.8	13.9	12.8
80°	9.6	9.6	9.6	9.6	9.6
82.5°	7.5	7.5	7.5	7.5	7.5
85°	4.3	4.3	4.3	4.3	4.3
87.5°	2.1	2.1	2.1	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)