

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: P252968

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252968
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-S4M12-41SWDMW-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM MATTE WHITE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 864.9 lumens
Efficiency: N/A
Efficacy: 86.5 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

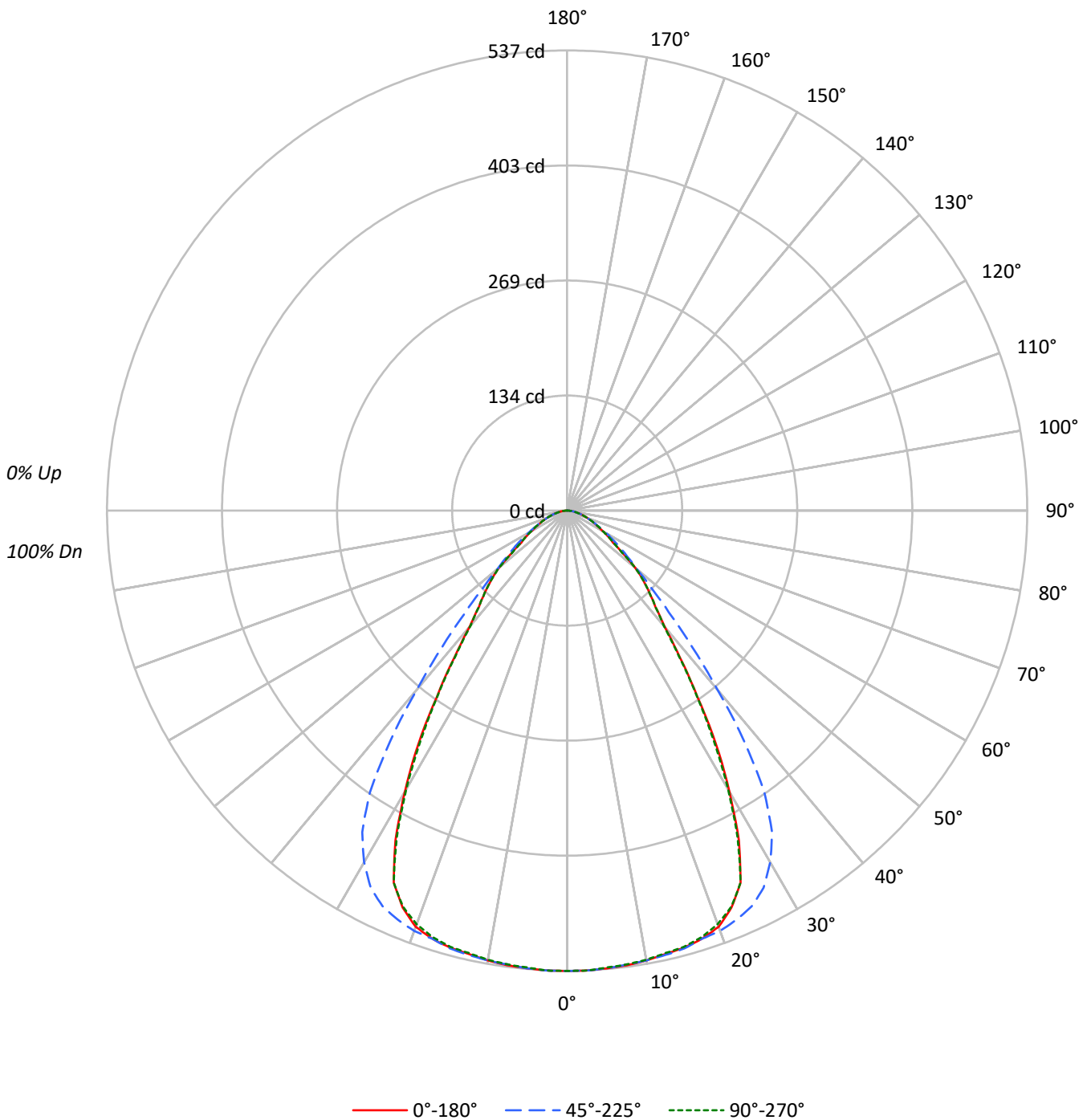
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	41119	41119	41119
5°	41199	41199	41123
10°	41435	41435	41357
15°	41841	41920	41761
20°	42096	42512	41844
25°	40446	43039	40446
30°	33462	41877	33188
35°	24762	37480	24575
40°	17686	27298	17486
45°	14733	18164	14733
50°	12313	12670	12313
55°	8741	10102	8874
60°	7363	7991	7363
65°	6303	6484	6303
70°	5505	5505	5505
75°	4850	4850	4850
80°	4055	4055	4055
85°	3601	3601	3601



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.1	5.9
10°-20°	149.2	17.2
20°-30°	222.9	25.8
30°-40°	198.4	22.9
40°-50°	118.1	13.7
50°-60°	66.9	7.7
60°-70°	35.9	4.1
70°-80°	17.6	2.0
80°-90°	4.9	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°	423.2	48.9
0°-40°	621.6	71.9
0°-60°	806.6	93.3
0°-90°	864.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	864.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	537	537	537	537	537	
5°	536	536	536	536	535	51
15°	528	528	529	527	527	149
25°	479	492	510	491	479	214
35°	265	310	401	309	263	167
45°	136	146	168	145	136	106
55°	66	73	76	73	66	62
65°	35	36	36	36	35	35
75°	16	16	16	16	16	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°	537.2	537.2	537.2	537.2	537.2
2.5°	537.2	537.2	537.2	537.2	537.2
5°	536.2	536.2	536.2	536.2	535.2
7.5°	535.2	534.2	534.2	534.2	534.2
10°	533.1	533.1	533.1	532.1	532.1
12.5°	530.1	530.1	531.1	530.1	529.0
15°	528.0	528.0	529.0	527.0	527.0
17.5°	523.9	524.9	523.9	523.9	521.9
20°	516.8	519.8	521.9	518.8	513.7
22.5°	501.4	509.6	516.8	508.6	500.4
25°	478.9	492.2	509.6	491.2	478.9
27.5°	433.9	467.6	496.3	464.6	430.8
30°	378.6	419.5	473.8	416.5	375.5
32.5°	323.4	364.3	445.1	362.2	318.2
35°	265.0	310.1	401.1	309.0	263.0
37.5°	215.9	256.8	339.7	254.8	213.9
40°	177.0	208.7	273.2	207.7	175.0
42.5°	152.5	169.9	215.9	168.8	152.5
45°	136.1	146.3	167.8	145.3	136.1
47.5°	120.7	128.9	132.0	127.9	120.7
50°	103.4	112.6	106.4	112.6	103.4
52.5°	81.9	93.1	89.0	94.1	80.8
55°	65.5	72.7	75.7	72.7	66.5
57.5°	57.3	59.4	63.4	59.4	57.3
60°	48.1	50.1	52.2	50.1	48.1
62.5°	40.9	43.0	43.0	43.0	42.0
65°	34.8	35.8	35.8	35.8	34.8
67.5°	29.7	29.7	29.7	29.7	29.7
70°	24.6	24.6	24.6	24.6	24.6
72.5°	20.5	20.5	20.5	20.5	20.5
75°	16.4	16.4	16.4	16.4	16.4
77.5°	13.3	13.3	12.3	13.3	12.3
80°	9.2	9.2	9.2	9.2	9.2
82.5°	7.2	7.2	7.2	7.2	7.2
85°	4.1	4.1	4.1	4.1	4.1
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)