

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: P241873

Luminaire Tested: **PRS410D010-S4M12-41SMDMW-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241873
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-53)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS410D010-S4M12-41SMDMW-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM MATTE WHITE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 882.3 lumens
Efficiency: N/A
Efficacy: 88.2 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.02
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

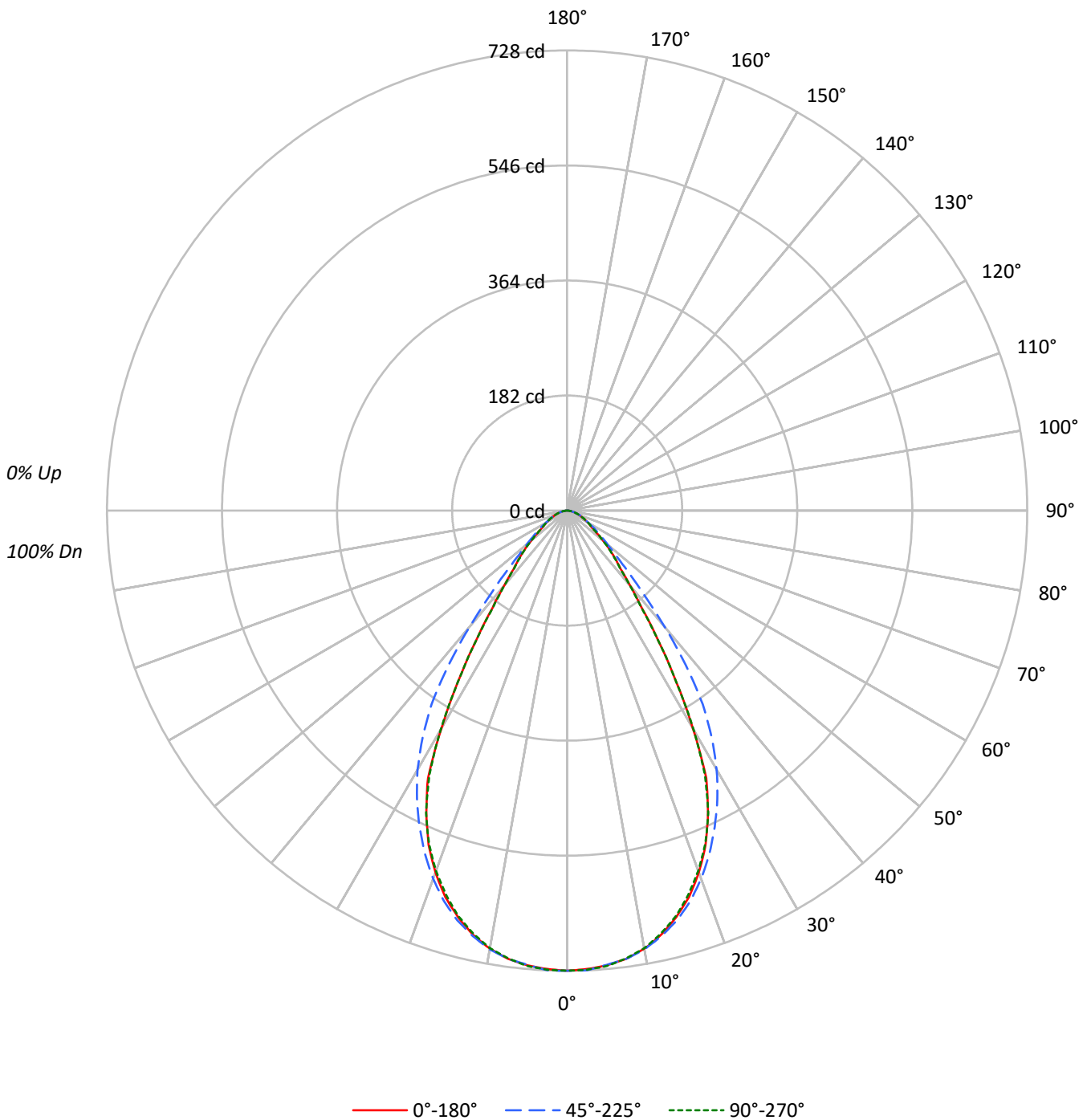
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91					91			
2	105	100	95	91	103	98	93	90	94	91	88	91	88	86	89	86	84	82					82			
3	99	91	85	81	97	90	84	80	87	83	79	85	81	77	82	79	76	74					74			
4	93	84	78	73	91	83	77	72	81	75	71	78	74	70	77	73	70	68					68			
5	87	78	71	66	86	77	70	66	75	69	65	73	68	64	71	67	64	62					62			
6	82	72	65	60	81	71	65	60	70	64	60	68	63	59	67	62	59	57					57			
7	78	67	60	55	76	66	60	55	65	59	55	64	58	55	62	58	54	53					53			
8	73	63	56	51	72	62	55	51	61	55	51	60	54	51	59	54	50	49					49			
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	48	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					42			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	55724	55724	55724
5°	55491	55414	55568
10°	54702	54780	54632
15°	52792	53172	52641
20°	49623	50486	49387
25°	44525	46645	44601
30°	35159	41815	35416
35°	23454	34910	23454
40°	15438	23921	15238
45°	11604	14527	11496
50°	8967	9884	8848
55°	6566	7607	6566
60°	5771	6062	5771
65°	5071	5252	5071
70°	4319	4543	4543
75°	3993	3993	3993
80°	3394	3394	3394
85°	2547	3425	2547



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.4	7.7
10°-20°	187.1	21.2
20°-30°	245.7	27.8
30°-40°	189.5	21.5
40°-50°	95.2	10.8
50°-60°	50.0	5.7
60°-70°	28.3	3.2
70°-80°	14.4	1.6
80°-90°	3.9	0.4
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°	501.1	56.8
0°-40°	690.6	78.3
0°-60°	835.8	94.7
0°-90°	882.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	882.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	728	728	728	728	728	
5°	722	723	721	723	723	68
15°	666	668	671	667	664	187
25°	527	543	552	542	528	238
35°	251	294	374	294	251	161
45°	107	118	134	117	106	84
55°	49	54	57	54	49	47
65°	28	28	29	28	28	28
75°	14	14	14	14	14	14
85°	3	3	4	3	3	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	728.0	728.0	728.0	728.0	728.0
2.5°	726.0	727.0	728.0	727.0	727.0
5°	722.2	723.2	721.2	723.2	723.2
7.5°	715.4	714.5	715.4	714.5	714.5
10°	703.8	703.8	704.8	702.9	702.9
12.5°	687.4	688.4	689.4	688.4	685.5
15°	666.2	668.1	671.0	667.2	664.3
17.5°	641.1	643.0	647.8	642.0	637.2
20°	609.2	614.1	619.8	614.1	606.3
22.5°	572.5	582.2	588.0	580.3	570.6
25°	527.2	542.6	552.3	541.6	528.1
27.5°	477.0	496.3	514.6	498.2	472.1
30°	397.8	438.3	473.1	440.3	400.7
32.5°	321.5	365.9	425.8	365.9	321.5
35°	251.0	293.5	373.6	294.5	251.0
37.5°	194.1	230.8	308.0	230.8	192.1
40°	154.5	178.6	239.4	177.6	152.5
42.5°	125.5	142.9	177.6	141.9	123.6
45°	107.2	117.8	134.2	116.8	106.2
47.5°	90.8	99.4	102.3	98.5	89.8
50°	75.3	84.0	83.0	83.0	74.3
52.5°	60.8	67.6	68.5	67.6	60.8
55°	49.2	54.1	57.0	54.1	49.2
57.5°	42.5	44.4	48.3	44.4	43.4
60°	37.7	38.6	39.6	38.6	37.7
62.5°	32.8	32.8	32.8	32.8	32.8
65°	28.0	28.0	29.0	28.0	28.0
67.5°	23.2	24.1	24.1	24.1	23.2
70°	19.3	20.3	20.3	20.3	20.3
72.5°	16.4	16.4	16.4	16.4	16.4
75°	13.5	13.5	13.5	13.5	13.5
77.5°	10.6	10.6	10.6	10.6	10.6
80°	7.7	7.7	7.7	7.7	7.7
82.5°	4.8	5.8	5.8	5.8	4.8
85°	2.9	2.9	3.9	2.9	2.9
87.5°	1.9	1.9	1.9	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)