

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: P241858

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241858  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-52)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS410D010-S4M12-41SNDMW-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW 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: 814.8 lumens  
Efficiency: N/A  
Efficacy: 81.5 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 0.89 / 0.93  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

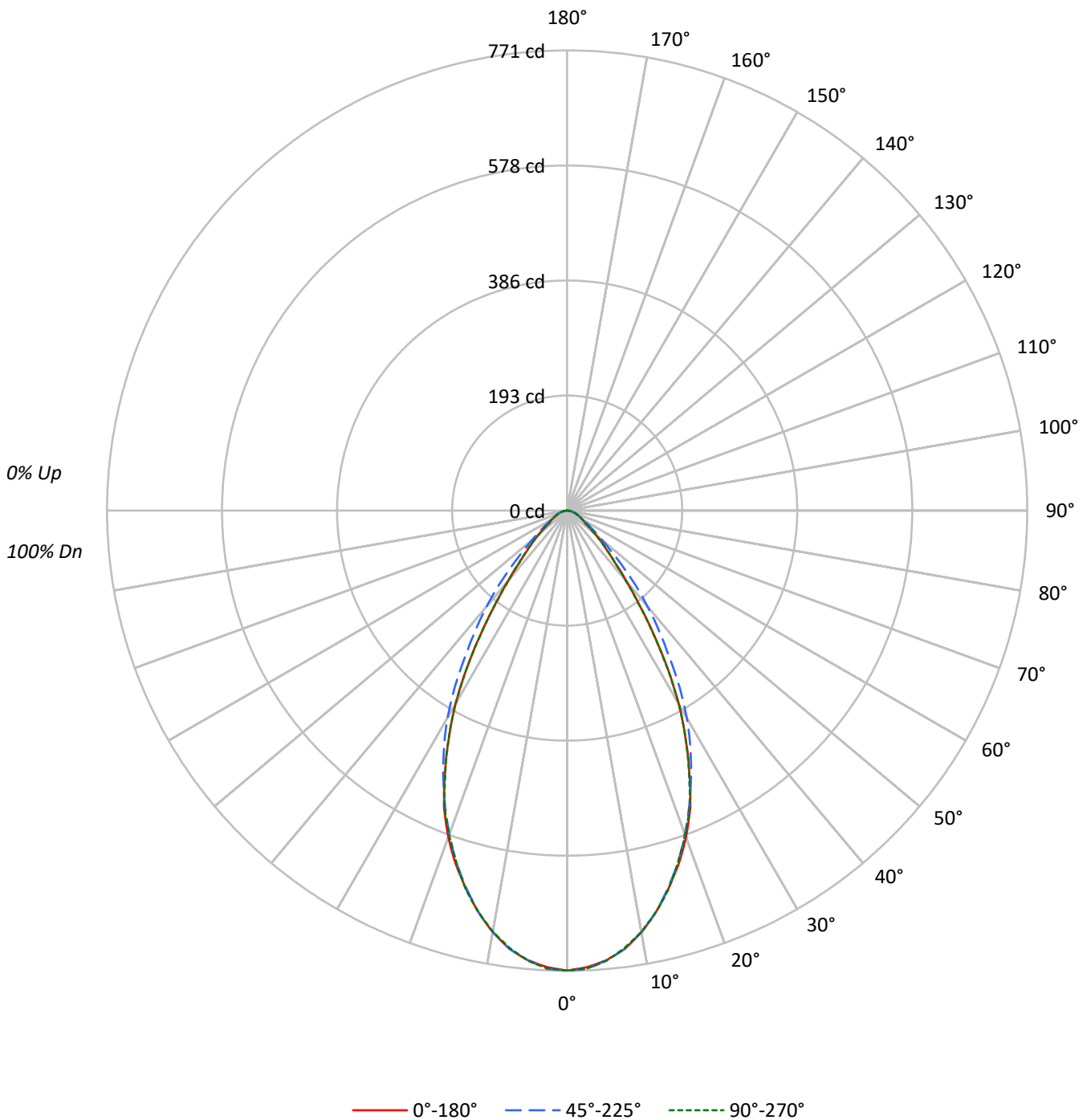
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	85	83
3	99	92	86	82	97	91	85	81	88	83	80	85	82	78	83	80	77	75
4	94	85	79	74	92	84	78	73	81	76	72	79	75	71	77	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	66	72	68	65	63
6	83	73	66	62	82	72	66	61	71	65	61	69	64	60	68	63	60	58
7	79	68	61	57	77	67	61	57	66	60	56	65	60	56	64	59	56	54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	49	69	59	53	49	58	53	49	57	52	48	56	52	48	47
10	67	56	50	46	66	56	50	46	55	49	45	54	49	45	53	49	45	44

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	58984	58984	58984
5°	58096	58096	58172
10°	55767	55697	55697
15°	51960	51809	52039
20°	47432	46959	47122
25°	40944	41510	40784
30°	33029	35425	33029
35°	23547	27706	23370
40°	15338	20943	15148
45°	10240	14116	10349
50°	7359	8967	7240
55°	4898	6312	4898
60°	4440	4730	4440
65°	4021	4021	4021
70°	3670	3670	3670
75°	3135	3135	3135
80°	2997	2997	2997
85°	2547	2547	2547



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.0	8.7
10°-20°	183.0	22.5
20°-30°	222.5	27.3
30°-40°	172.2	21.1
40°-50°	88.7	10.9
50°-60°	40.1	4.9
60°-70°	22.3	2.7
70°-80°	11.7	1.4
80°-90°	3.4	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°	476.4	58.5
0°-40°	648.6	79.6
0°-60°	777.4	95.4
0°-90°	814.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	814.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	771	771	771	771	771	
5°	756	758	756	757	757	71
15°	656	656	654	655	657	183
25°	485	491	492	490	483	221
35°	252	277	296	276	250	158
45°	95	109	130	109	96	76
55°	37	42	47	42	37	36
65°	22	22	22	22	22	22
75°	11	11	11	11	11	12
85°	3	3	3	3	3	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	770.6	770.6	770.6	770.6	770.6
2.5°	765.8	766.8	768.7	767.7	767.7
5°	756.1	758.1	756.1	757.1	757.1
7.5°	740.7	740.7	740.7	738.8	738.8
10°	717.5	716.6	716.6	716.6	716.6
12.5°	688.5	689.5	688.5	689.5	688.5
15°	655.7	655.7	653.8	654.7	656.7
17.5°	620.9	620.0	618.0	617.1	618.0
20°	582.3	579.4	576.5	578.5	578.5
22.5°	538.9	537.9	535.0	536.0	536.9
25°	484.8	490.6	491.5	489.6	482.9
27.5°	429.7	436.5	447.1	436.5	429.7
30°	373.7	384.3	400.8	384.3	373.7
32.5°	312.9	332.2	350.5	333.2	311.9
35°	252.0	277.2	296.5	276.2	250.1
37.5°	198.0	222.1	251.1	223.1	197.0
40°	153.5	175.8	209.6	175.8	151.6
42.5°	119.7	139.1	169.0	138.1	119.7
45°	94.6	109.1	130.4	109.1	95.6
47.5°	77.3	87.9	98.5	87.9	77.3
50°	61.8	69.5	75.3	69.5	60.8
52.5°	48.3	55.0	58.9	55.0	48.3
55°	36.7	42.5	47.3	42.5	36.7
57.5°	32.8	33.8	38.6	33.8	32.8
60°	29.0	29.0	30.9	29.0	29.0
62.5°	25.1	26.1	26.1	26.1	25.1
65°	22.2	22.2	22.2	22.2	22.2
67.5°	18.3	19.3	19.3	19.3	18.3
70°	16.4	16.4	16.4	16.4	16.4
72.5°	13.5	13.5	13.5	13.5	13.5
75°	10.6	10.6	10.6	10.6	10.6
77.5°	8.7	8.7	8.7	8.7	8.7
80°	6.8	6.8	6.8	6.8	6.8
82.5°	4.8	4.8	4.8	4.8	4.8
85°	2.9	2.9	2.9	2.9	2.9
87.5°	1.0	1.0	1.0	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)