

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: P252934

Luminaire Tested: **PRS415D010-S4M12-41SWDC**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252934
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: PRS415D010-S4M12-41SWDC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1191.7 lumens
Efficiency: N/A
Efficacy: 99.3 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

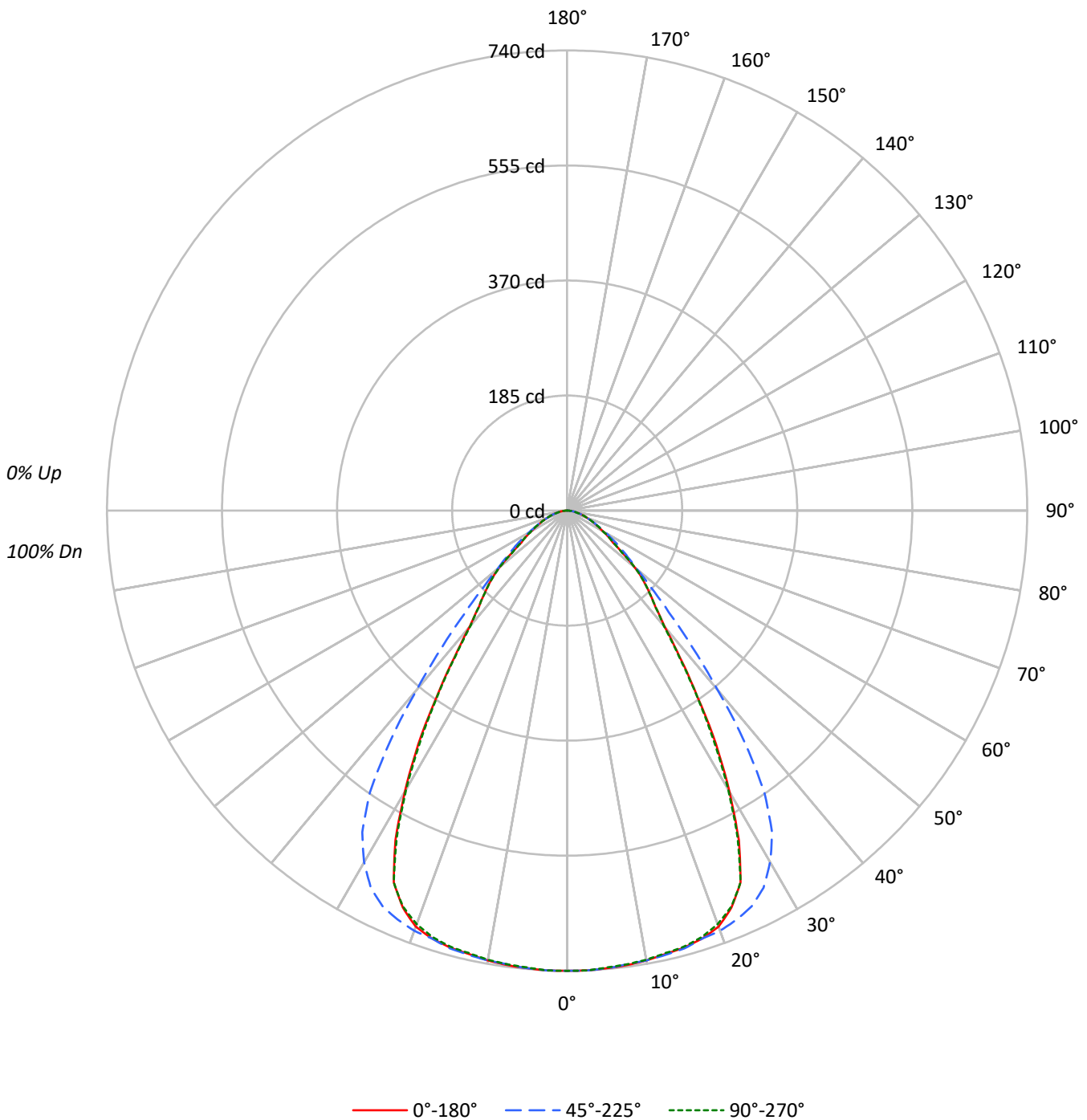
Input Watts (W): 12
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	56657	56657	56657
5°	56766	56766	56659
10°	57096	57096	56987
15°	57650	57761	57539
20°	57997	58575	57654
25°	55724	59297	55724
30°	46110	57698	45730
35°	34125	51646	33863
40°	24371	37620	24091
45°	20297	25027	20297
50°	16957	17457	16957
55°	12037	13919	12224
60°	10150	11007	10150
65°	8676	8929	8676
70°	7564	7564	7564
75°	6684	6684	6684
80°	5598	5598	5598
85°	4918	4918	4918



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.3	5.9
10°-20°	205.6	17.2
20°-30°	307.2	25.8
30°-40°	273.4	22.9
40°-50°	162.7	13.7
50°-60°	92.2	7.7
60°-70°	49.4	4.1
70°-80°	24.2	2.0
80°-90°	6.7	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°	583.1	48.9
0°-40°	856.5	71.9
0°-60°	1111.4	93.3
0°-90°	1191.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1191.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	740	740	740	740	740	
5°	739	739	739	739	737	70
15°	728	728	729	726	726	205
25°	660	678	702	677	660	294
35°	365	427	553	426	362	231
45°	188	202	231	200	188	146
55°	90	100	104	100	92	86
65°	48	49	49	49	48	48
75°	23	23	23	23	23	24
85°	6	6	6	6	6	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	740.2	740.2	740.2	740.2	740.2
2.5°	740.2	740.2	740.2	740.2	740.2
5°	738.8	738.8	738.8	738.8	737.4
7.5°	737.4	736.0	736.0	736.0	736.0
10°	734.6	734.6	734.6	733.2	733.2
12.5°	730.3	730.3	731.8	730.3	728.9
15°	727.5	727.5	728.9	726.1	726.1
17.5°	721.9	723.3	721.9	721.9	719.1
20°	712.0	716.2	719.1	714.8	707.8
22.5°	690.9	702.1	712.0	700.7	689.5
25°	659.8	678.2	702.1	676.8	659.8
27.5°	597.8	644.3	683.8	640.1	593.6
30°	521.7	578.1	652.8	573.8	517.4
32.5°	445.5	501.9	613.3	499.1	438.5
35°	365.2	427.2	552.7	425.8	362.4
37.5°	297.5	353.9	468.1	351.1	294.7
40°	243.9	287.6	376.5	286.2	241.1
42.5°	210.1	234.0	297.5	232.6	210.1
45°	187.5	201.6	231.2	200.2	187.5
47.5°	166.4	177.7	181.9	176.2	166.4
50°	142.4	155.1	146.6	155.1	142.4
52.5°	112.8	128.3	122.7	129.7	111.4
55°	90.2	100.1	104.3	100.1	91.6
57.5°	79.0	81.8	87.4	81.8	79.0
60°	66.3	69.1	71.9	69.1	66.3
62.5°	56.4	59.2	59.2	59.2	57.8
65°	47.9	49.3	49.3	49.3	47.9
67.5°	40.9	40.9	40.9	40.9	40.9
70°	33.8	33.8	33.8	33.8	33.8
72.5°	28.2	28.2	28.2	28.2	28.2
75°	22.6	22.6	22.6	22.6	22.6
77.5°	18.3	18.3	16.9	18.3	16.9
80°	12.7	12.7	12.7	12.7	12.7
82.5°	9.9	9.9	9.9	9.9	9.9
85°	5.6	5.6	5.6	5.6	5.6
87.5°	2.8	2.8	2.8	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)