

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: P252933

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252933
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
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: 893.4 lumens
Efficiency: N/A
Efficacy: 89.3 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

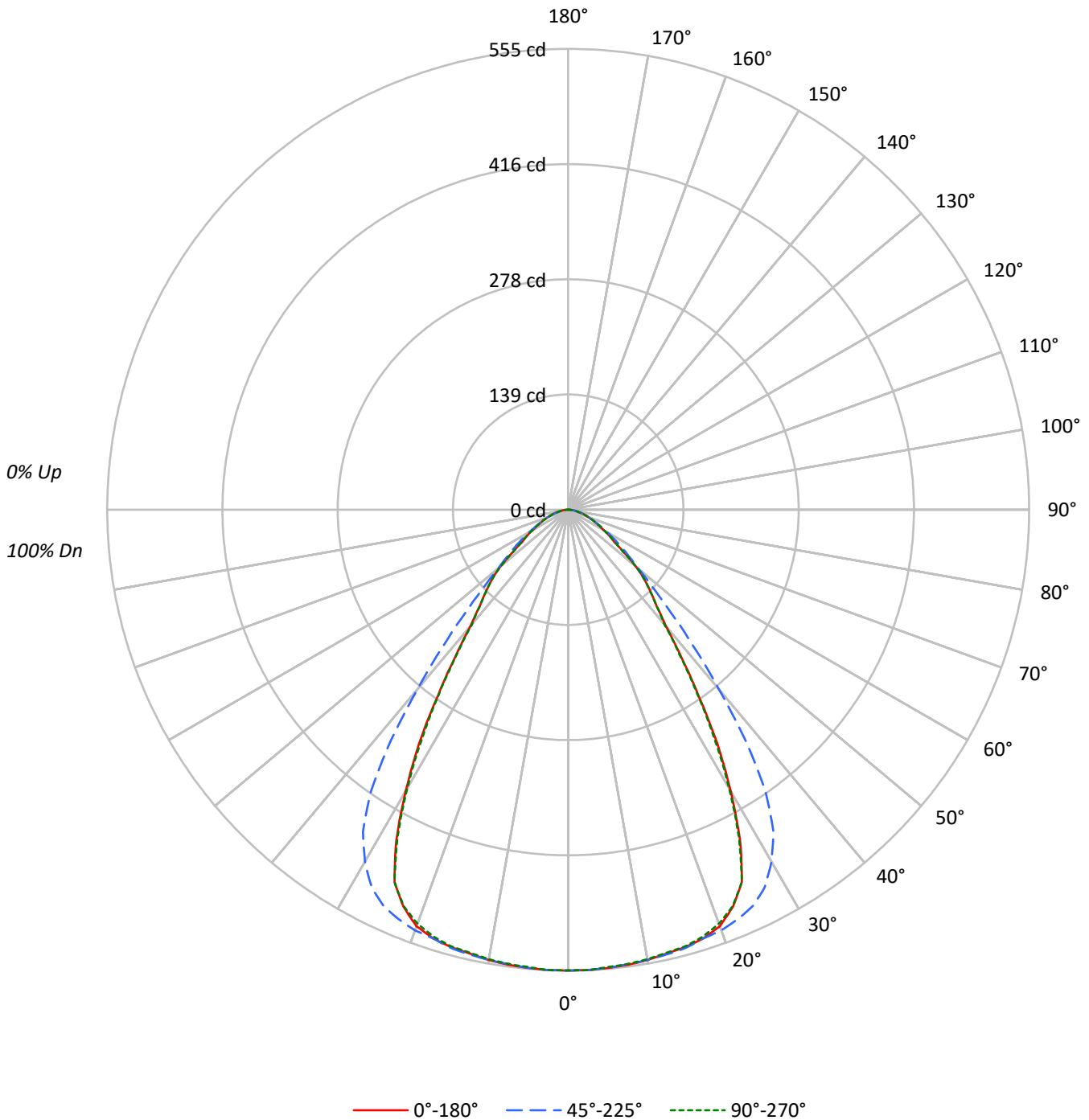
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	42474	42474	42474
5°	42559	42559	42475
10°	42803	42803	42717
15°	43219	43307	43140
20°	43481	43913	43220
25°	41781	44458	41781
30°	34567	43255	34284
35°	25584	38713	25379
40°	18275	28198	18056
45°	15220	18760	15220
50°	12718	13087	12718
55°	9021	10436	9168
60°	7608	8251	7608
65°	6502	6701	6502
70°	5684	5684	5684
75°	4998	4998	4998
80°	4188	4188	4188
85°	3689	3689	3689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.7	5.9
10°-20°	154.1	17.2
20°-30°	230.3	25.8
30°-40°	205.0	22.9
40°-50°	122.0	13.7
50°-60°	69.1	7.7
60°-70°	37.1	4.1
70°-80°	18.1	2.0
80°-90°	5.0	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°	437.1	48.9
0°-40°	642.1	71.9
0°-60°	833.2	93.3
0°-90°	893.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	893.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	555	555	555	555	555	
5°	554	554	554	554	553	53
15°	545	545	546	544	544	154
25°	495	508	526	507	495	221
35°	274	320	414	319	272	173
45°	141	151	173	150	141	109
55°	68	75	78	75	69	64
65°	36	37	37	37	36	36
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°	554.9	554.9	554.9	554.9	554.9
2.5°	554.9	554.9	554.9	554.9	554.9
5°	553.9	553.9	553.9	553.9	552.8
7.5°	552.8	551.8	551.8	551.8	551.8
10°	550.7	550.7	550.7	549.6	549.6
12.5°	547.5	547.5	548.6	547.5	546.5
15°	545.4	545.4	546.5	544.4	544.4
17.5°	541.2	542.2	541.2	541.2	539.1
20°	533.8	537.0	539.1	535.9	530.6
22.5°	517.9	526.4	533.8	525.3	516.9
25°	494.7	508.4	526.4	507.4	494.7
27.5°	448.2	483.0	512.6	479.9	445.0
30°	391.1	433.4	489.4	430.2	387.9
32.5°	334.0	376.3	459.8	374.2	328.7
35°	273.8	320.3	414.3	319.2	271.6
37.5°	223.0	265.3	350.9	263.2	220.9
40°	182.9	215.6	282.2	214.6	180.7
42.5°	157.5	175.5	223.0	174.4	157.5
45°	140.6	151.1	173.3	150.1	140.6
47.5°	124.7	133.2	136.4	132.1	124.7
50°	106.8	116.3	109.9	116.3	106.8
52.5°	84.6	96.2	92.0	97.2	83.5
55°	67.6	75.0	78.2	75.0	68.7
57.5°	59.2	61.3	65.5	61.3	59.2
60°	49.7	51.8	53.9	51.8	49.7
62.5°	42.3	44.4	44.4	44.4	43.3
65°	35.9	37.0	37.0	37.0	35.9
67.5°	30.7	30.7	30.7	30.7	30.7
70°	25.4	25.4	25.4	25.4	25.4
72.5°	21.1	21.1	21.1	21.1	21.1
75°	16.9	16.9	16.9	16.9	16.9
77.5°	13.7	13.7	12.7	13.7	12.7
80°	9.5	9.5	9.5	9.5	9.5
82.5°	7.4	7.4	7.4	7.4	7.4
85°	4.2	4.2	4.2	4.2	4.2
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)