

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: P241678

Luminaire Tested: **PRS410D010-S4M12-44SNDMW-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241678
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-40)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS410D010-S4M12-44SNDMW-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SHALLOW 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: 904.6 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 0.89 / 0.89 / 0.94
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

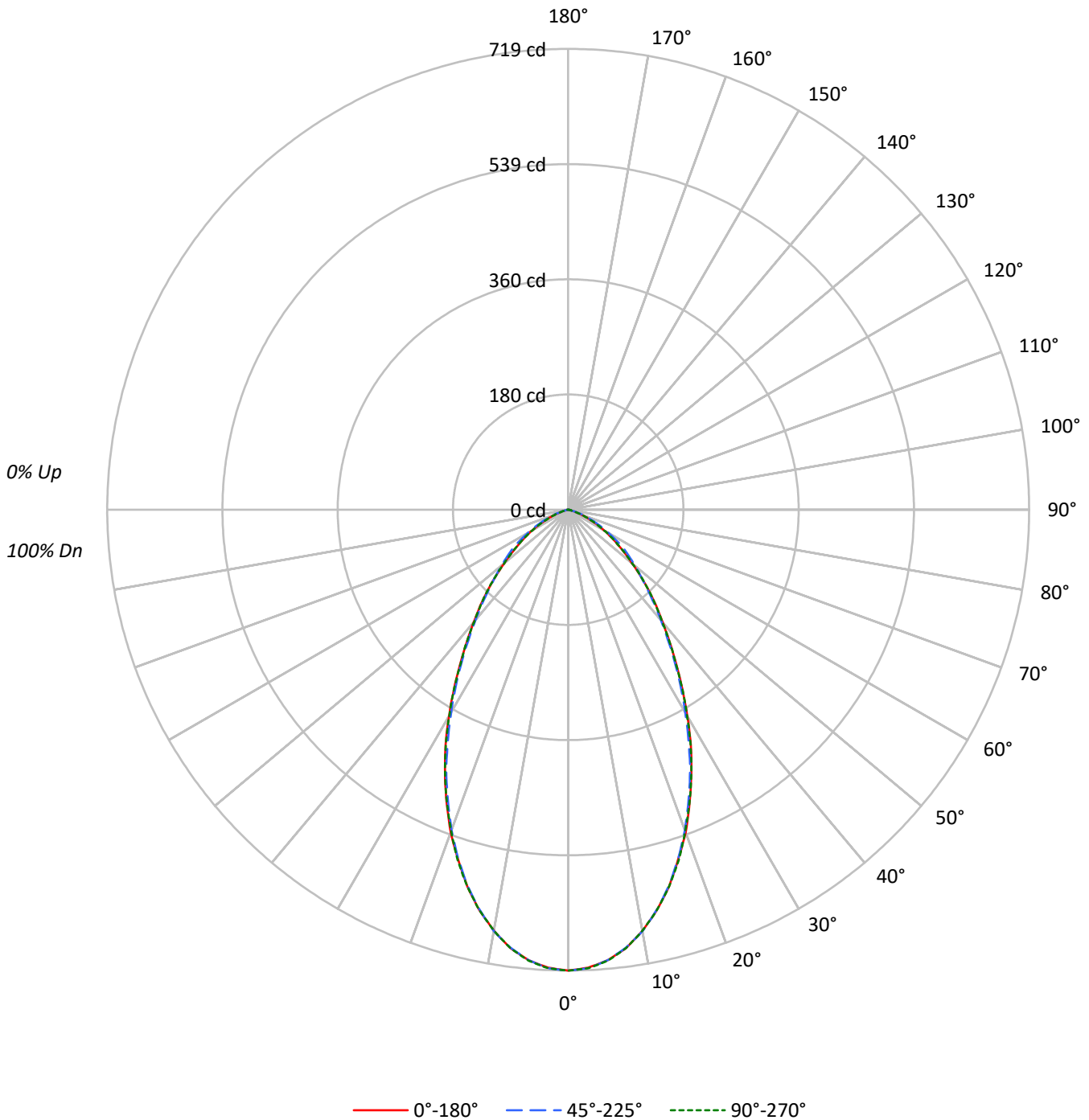
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90					90			
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81					81			
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72					72			
4	91	82	75	69	89	80	74	69	78	73	68	76	71	67	74	70	66	65					65			
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58					58			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53					53			
7	75	64	56	51	73	63	56	51	62	55	51	60	55	51	59	54	50	49					49			
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45					45			
9	67	55	48	43	65	55	48	43	54	47	43	53	47	43	52	47	43	41					41			
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	43	40	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	55042	55042	55042
5°	54208	54208	54284
10°	51834	51912	51834
15°	48188	48109	48188
20°	43636	43318	43473
25°	38394	37988	38394
30°	32844	32243	32755
35°	27416	27061	27323
40°	22852	22472	22762
45°	19117	18803	19225
50°	15516	16207	15516
55°	12491	14039	12624
60°	9905	11083	9905
65°	7172	8386	7172
70°	4319	5394	4319
75°	1420	2277	1420
80°	1278	1278	1278
85°	878	878	878



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.1	7.3
10°-20°	169.5	18.7
20°-30°	206.9	22.9
30°-40°	182.8	20.2
40°-50°	136.5	15.1
50°-60°	88.5	9.8
60°-70°	43.6	4.8
70°-80°	9.5	1.0
80°-90°	1.2	0.1
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°	442.5	48.9
0°-40°	625.4	69.1
0°-60°	850.3	94.0
0°-90°	904.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	904.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	719	719	719	719	719	
5°	706	706	706	706	706	66
15°	608	608	607	608	608	170
25°	455	454	450	453	455	208
35°	293	292	290	292	292	184
45°	177	177	174	176	178	137
55°	94	96	105	98	95	85
65°	40	44	46	43	40	40
75°	5	6	8	6	5	8
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	719.1	719.1	719.1	719.1	719.1
2.5°	715.2	715.2	716.2	716.2	716.2
5°	705.5	705.5	705.5	706.5	706.5
7.5°	690.1	689.1	689.1	690.1	690.1
10°	666.9	666.9	667.9	666.0	666.9
12.5°	639.9	639.9	638.9	639.9	639.9
15°	608.1	608.1	607.1	608.1	608.1
17.5°	571.4	571.4	570.4	572.4	573.3
20°	535.7	534.7	531.8	533.7	533.7
22.5°	495.1	494.2	490.3	493.2	494.2
25°	454.6	453.6	449.8	452.7	454.6
27.5°	414.1	410.2	406.3	411.2	413.1
30°	371.6	368.7	364.8	368.7	370.6
32.5°	331.1	330.1	326.2	329.1	331.1
35°	293.4	291.5	289.6	291.5	292.4
37.5°	259.6	257.7	254.8	257.7	259.6
40°	228.7	226.8	224.9	225.9	227.8
42.5°	202.7	200.8	197.9	199.8	201.7
45°	176.6	176.6	173.7	175.7	177.6
47.5°	152.5	154.4	153.5	154.4	153.5
50°	130.3	134.2	136.1	134.2	130.3
52.5°	111.0	113.9	119.7	113.9	111.0
55°	93.6	96.5	105.2	97.5	94.6
57.5°	79.1	82.0	88.8	82.0	79.1
60°	64.7	68.5	72.4	68.5	64.7
62.5°	52.1	56.0	58.9	56.0	51.2
65°	39.6	44.4	46.3	43.4	39.6
67.5°	29.0	32.8	34.7	32.8	29.0
70°	19.3	23.2	24.1	23.2	19.3
72.5°	11.6	14.5	14.5	13.5	11.6
75°	4.8	5.8	7.7	5.8	4.8
77.5°	3.9	3.9	3.9	3.9	3.9
80°	2.9	2.9	2.9	2.9	2.9
82.5°	1.9	1.9	1.9	1.9	1.9
85°	1.0	1.0	1.0	1.0	1.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)