

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: P241813

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241813
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-49)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS410D010-S4M12-41SNDMB-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM MATTE BLACK
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 604.3 lumens
Efficiency: N/A
Efficacy: 60.4 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.89
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

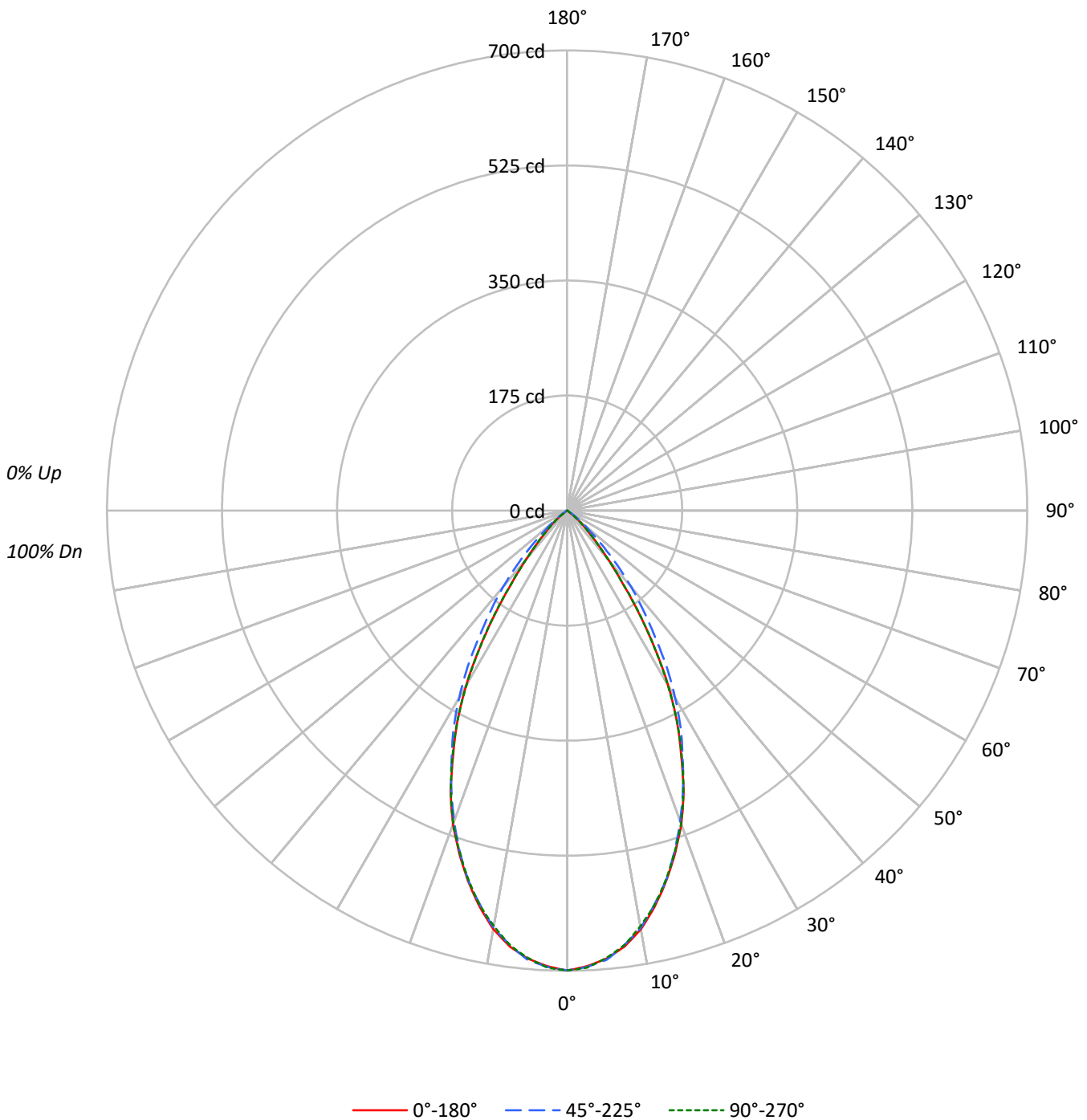
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	113	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93
2	108	103	99	95	106	101	98	94	98	95	92	95	93	90	92	90	88	87
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	81
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70
6	87	78	72	68	86	78	72	68	76	71	67	75	70	67	73	69	66	65
7	83	74	67	63	82	73	67	63	72	66	63	70	66	62	69	65	62	61
8	79	69	63	59	78	69	63	59	67	62	59	66	62	58	65	61	58	57
9	75	65	59	55	74	65	59	55	64	59	55	63	58	55	62	58	55	53
10	71	62	56	52	70	61	56	52	60	55	52	60	55	51	59	54	51	50

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	53550	53550	53550
5°	52571	52717	52494
10°	50256	50101	49876
15°	46191	46112	46033
20°	41347	40956	41265
25°	34636	35125	34880
30°	27205	28999	27037
35°	17670	21548	17857
40°	9742	15138	9542
45°	4806	8562	5012
50°	2179	3787	2179
55°	133	1415	133
60°	0	291	153
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	10.6
10°-20°	162.1	26.8
20°-30°	188.9	31.3
30°-40°	132.0	21.8
40°-50°	49.4	8.2
50°-60°	7.8	1.3
60°-70°	0.1	0.0
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	415.1	68.7
0°-40°	547.1	90.5
0°-60°	604.2	100.0
0°-90°	604.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	604.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	700	700	700	700	700	
5°	684	685	686	683	683	64
15°	583	583	582	582	581	163
25°	410	416	416	417	413	187
35°	189	210	231	211	191	119
45°	44	58	79	58	46	38
55°	1	6	11	7	1	4
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	699.6	699.6	699.6	699.6	699.6
2.5°	693.8	693.8	694.8	694.8	695.8
5°	684.2	685.2	686.1	683.2	683.2
7.5°	668.8	667.8	666.8	666.8	666.8
10°	646.6	645.6	644.6	642.7	641.7
12.5°	616.6	615.7	613.8	614.7	614.7
15°	582.9	582.9	581.9	581.9	580.9
17.5°	546.2	545.2	543.3	544.3	544.3
20°	507.6	505.7	502.8	503.7	506.6
22.5°	463.2	464.2	460.3	462.2	462.2
25°	410.1	415.9	415.9	416.9	413.0
27.5°	361.9	365.7	374.4	364.8	361.9
30°	307.8	315.6	328.1	314.6	305.9
32.5°	248.0	263.5	281.8	264.4	248.0
35°	189.1	210.4	230.6	211.3	191.1
37.5°	136.1	160.2	189.1	162.1	138.0
40°	97.5	118.7	151.5	118.7	95.5
42.5°	66.6	83.0	112.9	84.0	66.6
45°	44.4	57.9	79.1	57.9	46.3
47.5°	29.9	39.6	51.1	39.6	29.9
50°	18.3	26.1	31.8	26.1	18.3
52.5°	8.7	14.5	18.3	14.5	8.7
55°	1.0	5.8	10.6	6.8	1.0
57.5°	1.0	1.0	5.8	1.0	1.0
60°	0.0	1.0	1.9	1.0	1.0
62.5°	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
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)