

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: P241903

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241903
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-55)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS410D010-S4M12-41SNDH-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM HAZE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 785.9 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Spacing Criteria (0/90/45): 0.87 / 0.87 / 0.91
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

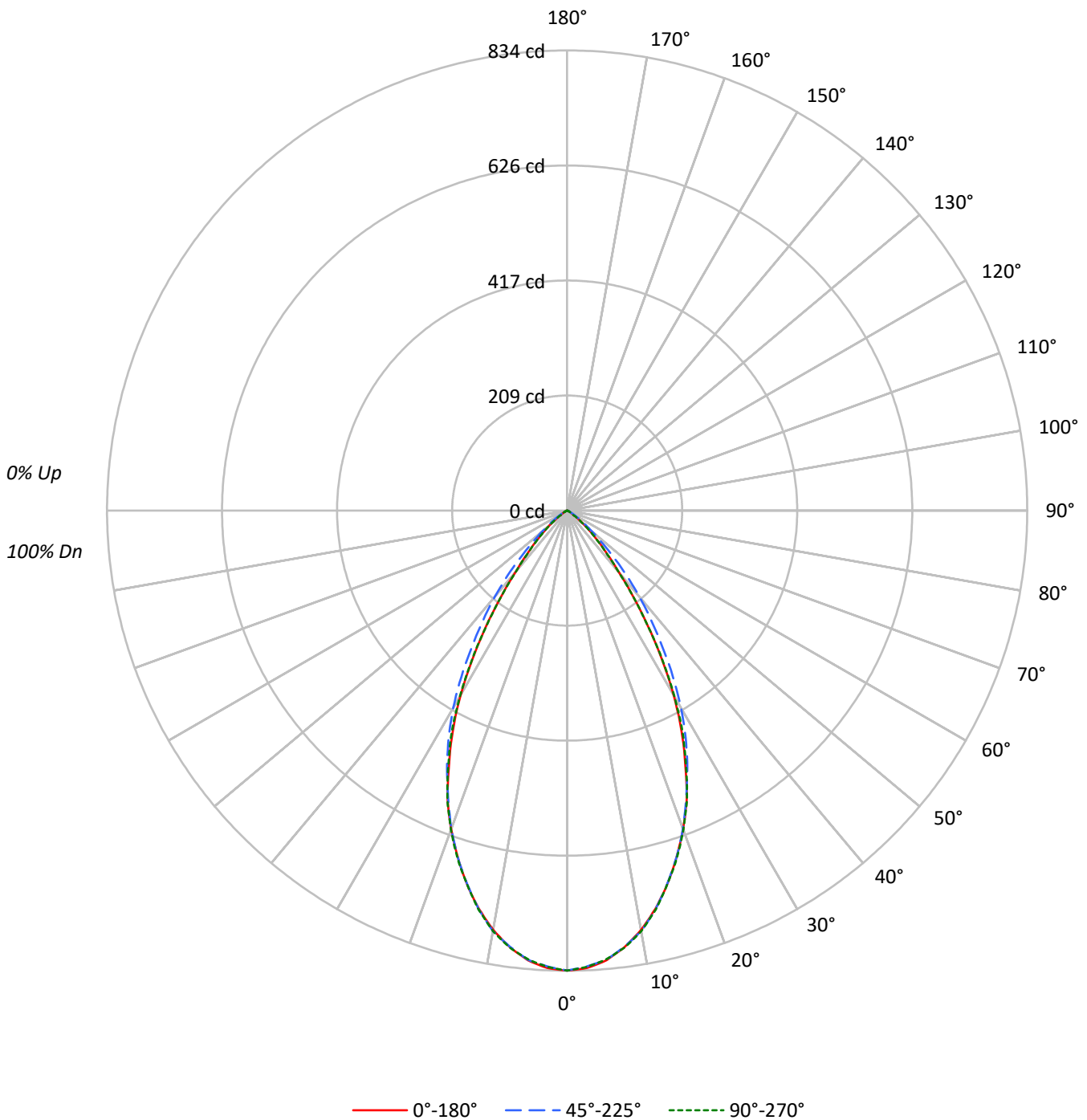
Input Watts (W): 10
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P241903

CATALOG NUMBER: PRS410D010-S4M12-41SNDH-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P241903

CATALOG NUMBER: PRS410D010-S4M12-41SNDH-3000K

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	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93					93			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86					86			
3	101	95	89	85	99	93	88	84	91	86	83	88	85	82	86	83	81	79					79			
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	74	73					73			
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67					67			
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62					62			
7	81	72	65	61	80	71	65	61	70	64	60	68	63	60	67	63	60	58					58			
8	77	67	61	57	76	67	61	56	65	60	56	64	59	56	63	59	56	54					54			
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51					51			
10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	48					48			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	63814	63814	63814
5°	62867	62798	62721
10°	59995	60151	60151
15°	55589	55510	55589
20°	50063	49989	50144
25°	42786	43520	43030
30°	34116	36503	34373
35°	23893	28042	23800
40°	14558	20344	14458
45°	8779	12741	8562
50°	4942	6895	4823
55°	1802	3603	1802
60°	1179	1776	1179
65°	706	1050	706
70°	425	649	425
75°	296	562	296
80°	441	441	441
85°	0	0	0



TEST NUMBER: P241903

CATALOG NUMBER: PRS410D010-S4M12-41SNDH-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	9.7
10°-20°	195.8	24.9
20°-30°	233.4	29.7
30°-40°	173.9	22.1
40°-50°	77.9	9.9
50°-60°	21.2	2.7
60°-70°	5.2	0.7
70°-80°	1.7	0.2
80°-90°	0.3	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°	505.7	64.4
0°-40°	679.7	86.5
0°-60°	778.8	99.1
0°-90°	785.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	785.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	834	834	834	834	834	
5°	818	815	817	816	816	77
15°	702	700	700	702	702	196
25°	507	514	515	515	510	231
35°	256	279	300	279	255	160
45°	81	95	118	95	79	65
55°	14	21	27	21	14	16
65°	4	5	6	5	4	4
75°	1	2	2	2	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P241903

CATALOG NUMBER: PRS410D010-S4M12-41SNDH-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	833.7	833.7	833.7	833.7	833.7
2.5°	829.8	827.9	826.9	826.9	827.9
5°	818.2	815.4	817.3	816.3	816.3
7.5°	798.0	798.0	797.0	798.9	798.9
10°	771.9	772.9	773.9	772.9	773.9
12.5°	739.1	738.2	740.1	741.1	741.1
15°	701.5	700.5	700.5	702.5	701.5
17.5°	659.0	660.0	659.0	660.0	661.0
20°	614.6	614.6	613.7	614.6	615.6
22.5°	566.4	566.4	563.5	565.4	567.4
25°	506.6	514.3	515.3	515.3	509.5
27.5°	448.7	454.5	465.1	456.4	453.5
30°	386.0	397.5	413.0	399.5	388.9
32.5°	319.4	340.6	357.0	338.7	322.3
35°	255.7	278.9	300.1	278.9	254.7
37.5°	195.9	221.0	249.9	221.9	195.9
40°	145.7	169.8	203.6	168.9	144.7
42.5°	108.1	128.3	159.2	127.4	108.1
45°	81.1	94.6	117.7	94.6	79.1
47.5°	58.9	70.4	83.9	69.5	58.9
50°	41.5	50.2	57.9	50.2	40.5
52.5°	26.1	33.8	39.6	33.8	26.1
55°	13.5	21.2	27.0	21.2	13.5
57.5°	9.6	11.6	17.4	11.6	9.6
60°	7.7	8.7	11.6	8.7	7.7
62.5°	5.8	6.8	6.8	6.8	5.8
65°	3.9	4.8	5.8	4.8	3.9
67.5°	2.9	3.9	3.9	3.9	2.9
70°	1.9	2.9	2.9	2.9	1.9
72.5°	1.9	1.9	1.9	1.9	1.9
75°	1.0	1.9	1.9	1.9	1.0
77.5°	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0
82.5°	0.0	1.0	1.0	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)