

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: P241915

Luminaire Tested: **PRS420D010-S4M12-41SNDH-4000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241915
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: PRS420D010-S4M12-41SNDH-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM HAZE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1764.6 lumens
Efficiency: N/A
Efficacy: 88.2 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

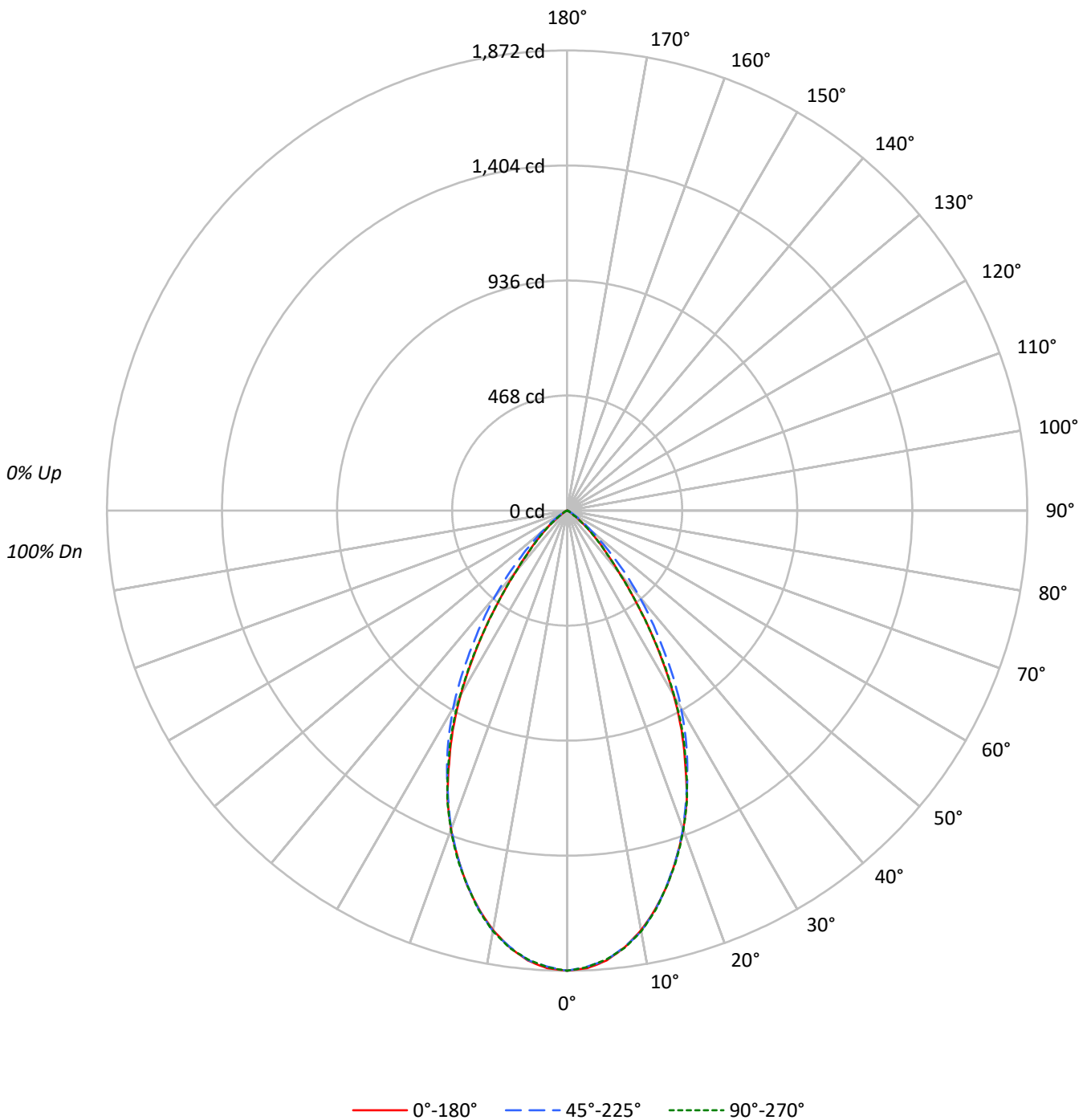
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P241915

CATALOG NUMBER: PRS420D010-S4M12-41SNDH-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P241915

CATALOG NUMBER: PRS420D010-S4M12-41SNDH-4000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	143289	143289	143289
5°	141178	141009	140840
10°	134727	135061	135061
15°	124824	124650	124824
20°	112425	112246	112604
25°	96069	97716	96618
30°	76603	81968	77178
35°	53655	62961	53449
40°	32694	45684	32474
45°	19701	28610	19236
50°	11098	15480	10836
55°	4044	8100	4044
60°	2648	3980	2648
65°	1576	2355	1576
70°	962	1455	962
75°	651	1272	651
80°	970	970	970
85°	0	0	0



TEST NUMBER: P241915

CATALOG NUMBER: PRS420D010-S4M12-41SNDH-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.9	9.7
10°-20°	439.6	24.9
20°-30°	524.2	29.7
30°-40°	390.5	22.1
40°-50°	174.9	9.9
50°-60°	47.6	2.7
60°-70°	11.5	0.7
70°-80°	3.8	0.2
80°-90°	0.6	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°	1135.6	64.4
0°-40°	1526.2	86.5
0°-60°	1748.7	99.1
0°-90°	1764.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1764.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1872	1872	1872	1872	1872	
5°	1837	1831	1835	1833	1833	172
15°	1575	1573	1573	1577	1575	439
25°	1138	1155	1157	1157	1144	518
35°	574	626	674	626	572	359
45°	182	212	264	212	178	146
55°	30	48	61	48	30	37
65°	9	11	13	11	9	10
75°	2	4	4	4	2	3
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P241915

CATALOG NUMBER: PRS420D010-S4M12-41SNDH-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1872.0	1872.0	1872.0	1872.0	1872.0
2.5°	1863.4	1859.0	1856.9	1856.9	1859.0
5°	1837.4	1830.9	1835.2	1833.0	1833.0
7.5°	1791.9	1791.9	1789.7	1794.0	1794.0
10°	1733.4	1735.5	1737.7	1735.5	1737.7
12.5°	1659.7	1657.5	1661.9	1664.0	1664.0
15°	1575.2	1573.0	1573.0	1577.4	1575.2
17.5°	1479.9	1482.0	1479.9	1482.0	1484.2
20°	1380.2	1380.2	1378.0	1380.2	1382.4
22.5°	1271.9	1271.9	1265.4	1269.7	1274.0
25°	1137.5	1154.9	1157.0	1157.0	1144.0
27.5°	1007.5	1020.5	1044.4	1024.9	1018.4
30°	866.7	892.7	927.4	897.0	873.2
32.5°	717.2	764.9	801.7	760.5	723.7
35°	574.2	626.2	673.8	626.2	572.0
37.5°	439.8	496.2	561.2	498.3	439.8
40°	327.2	381.3	457.2	379.2	325.0
42.5°	242.7	288.2	357.5	286.0	242.7
45°	182.0	212.3	264.3	212.3	177.7
47.5°	132.2	158.2	188.5	156.0	132.2
50°	93.2	112.7	130.0	112.7	91.0
52.5°	58.5	75.8	88.8	75.8	58.5
55°	30.3	47.7	60.7	47.7	30.3
57.5°	21.7	26.0	39.0	26.0	21.7
60°	17.3	19.5	26.0	19.5	17.3
62.5°	13.0	15.2	15.2	15.2	13.0
65°	8.7	10.8	13.0	10.8	8.7
67.5°	6.5	8.7	8.7	8.7	6.5
70°	4.3	6.5	6.5	6.5	4.3
72.5°	4.3	4.3	4.3	4.3	4.3
75°	2.2	4.3	4.3	4.3	2.2
77.5°	2.2	2.2	2.2	2.2	2.2
80°	2.2	2.2	2.2	2.2	2.2
82.5°	0.0	2.2	2.2	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)