

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: P241905

Luminaire Tested: **PRS420D010-S4M12-41SNDH-3000K**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241905
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-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: 1683.2 lumens
Efficiency: N/A
Efficacy: 84.2 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

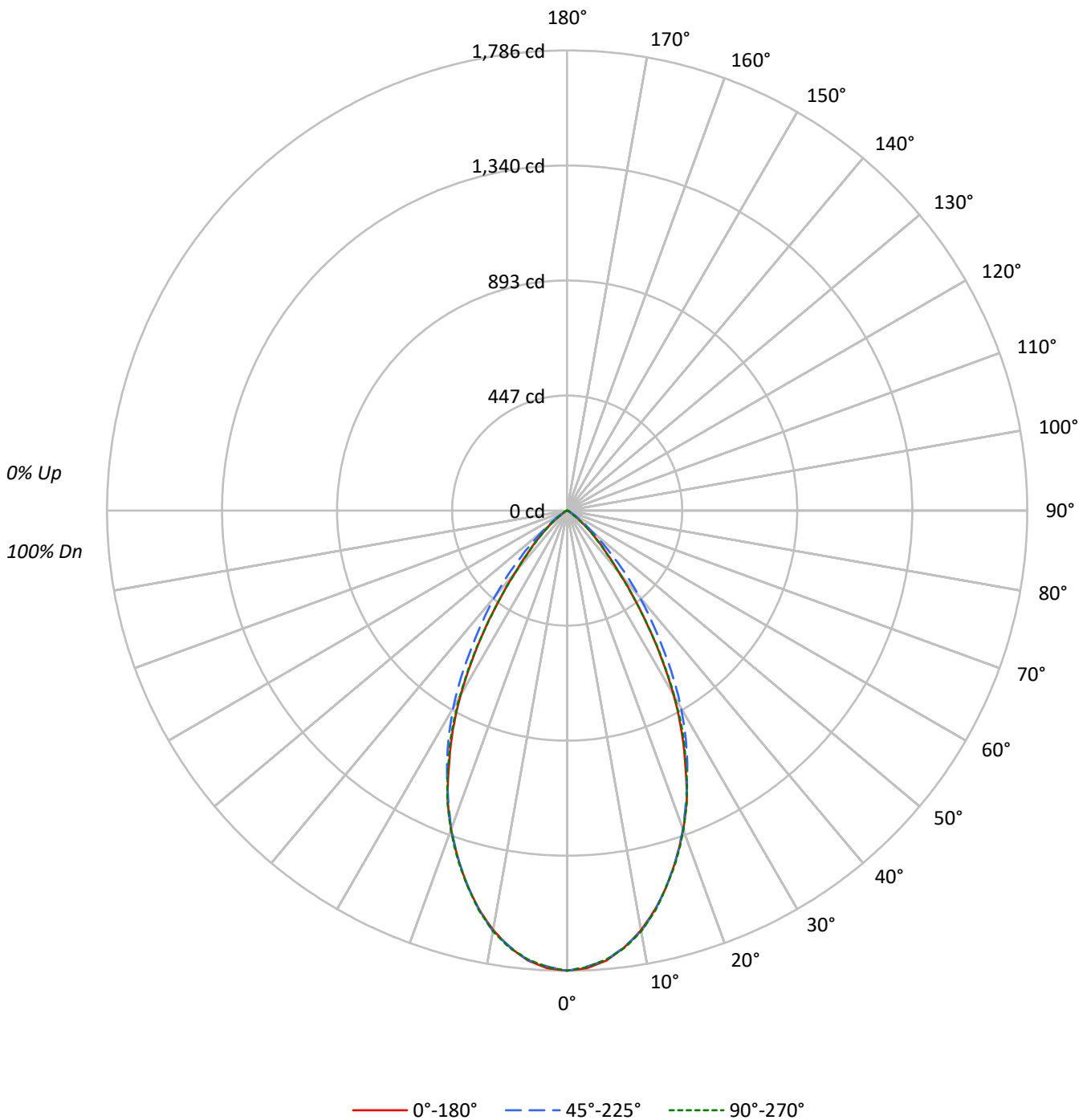
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	136676	136676	136676
5°	134662	134501	134340
10°	128509	128828	128828
15°	119063	118897	119063
20°	107237	107065	107408
25°	91635	93206	92159
30°	73068	78185	73616
35°	51178	60055	50982
40°	31185	43575	30975
45°	18792	27289	18348
50°	10586	14766	10336
55°	3857	7727	3857
60°	2526	3797	2526
65°	1503	2246	1503
70°	918	1388	918
75°	621	1213	621
80°	926	926	926
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.0	9.7
10°-20°	419.3	24.9
20°-30°	500.0	29.7
30°-40°	372.5	22.1
40°-50°	166.9	9.9
50°-60°	45.4	2.7
60°-70°	11.0	0.7
70°-80°	3.6	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°	1083.2	64.4
0°-40°	1455.7	86.5
0°-60°	1668.0	99.1
0°-90°	1683.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1683.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1786	1786	1786	1786	1786	
5°	1753	1746	1750	1748	1748	164
15°	1502	1500	1500	1505	1502	419
25°	1085	1102	1104	1104	1091	494
35°	548	597	643	597	546	342
45°	174	202	252	202	170	139
55°	29	46	58	46	29	35
65°	8	10	12	10	8	9
75°	2	4	4	4	2	3
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°	1785.6	1785.6	1785.6	1785.6	1785.6
2.5°	1777.4	1773.2	1771.2	1771.2	1773.2
5°	1752.6	1746.4	1750.5	1748.4	1748.4
7.5°	1709.2	1709.2	1707.1	1711.2	1711.2
10°	1653.4	1655.4	1657.5	1655.4	1657.5
12.5°	1583.1	1581.0	1585.2	1587.2	1587.2
15°	1502.5	1500.4	1500.4	1504.6	1502.5
17.5°	1411.6	1413.6	1411.6	1413.6	1415.7
20°	1316.5	1316.5	1314.4	1316.5	1318.6
22.5°	1213.2	1213.2	1207.0	1211.1	1215.2
25°	1085.0	1101.6	1103.6	1103.6	1091.2
27.5°	961.0	973.4	996.2	977.6	971.4
30°	826.7	851.5	884.6	855.6	832.9
32.5°	684.1	729.6	764.7	725.4	690.3
35°	547.7	597.3	642.7	597.3	545.6
37.5°	419.5	473.3	535.3	475.3	419.5
40°	312.1	363.7	436.1	361.7	310.0
42.5°	231.5	274.9	341.0	272.8	231.5
45°	173.6	202.5	252.1	202.5	169.5
47.5°	126.1	150.9	179.8	148.8	126.1
50°	88.9	107.5	124.0	107.5	86.8
52.5°	55.8	72.3	84.7	72.3	55.8
55°	28.9	45.5	57.9	45.5	28.9
57.5°	20.7	24.8	37.2	24.8	20.7
60°	16.5	18.6	24.8	18.6	16.5
62.5°	12.4	14.5	14.5	14.5	12.4
65°	8.3	10.3	12.4	10.3	8.3
67.5°	6.2	8.3	8.3	8.3	6.2
70°	4.1	6.2	6.2	6.2	4.1
72.5°	4.1	4.1	4.1	4.1	4.1
75°	2.1	4.1	4.1	4.1	2.1
77.5°	2.1	2.1	2.1	2.1	2.1
80°	2.1	2.1	2.1	2.1	2.1
82.5°	0.0	2.1	2.1	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)