

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: P241950

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241950
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-58)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-41SNDC-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM SPECULAR
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1755.5 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 0.8 / 0.79 / 0.83
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

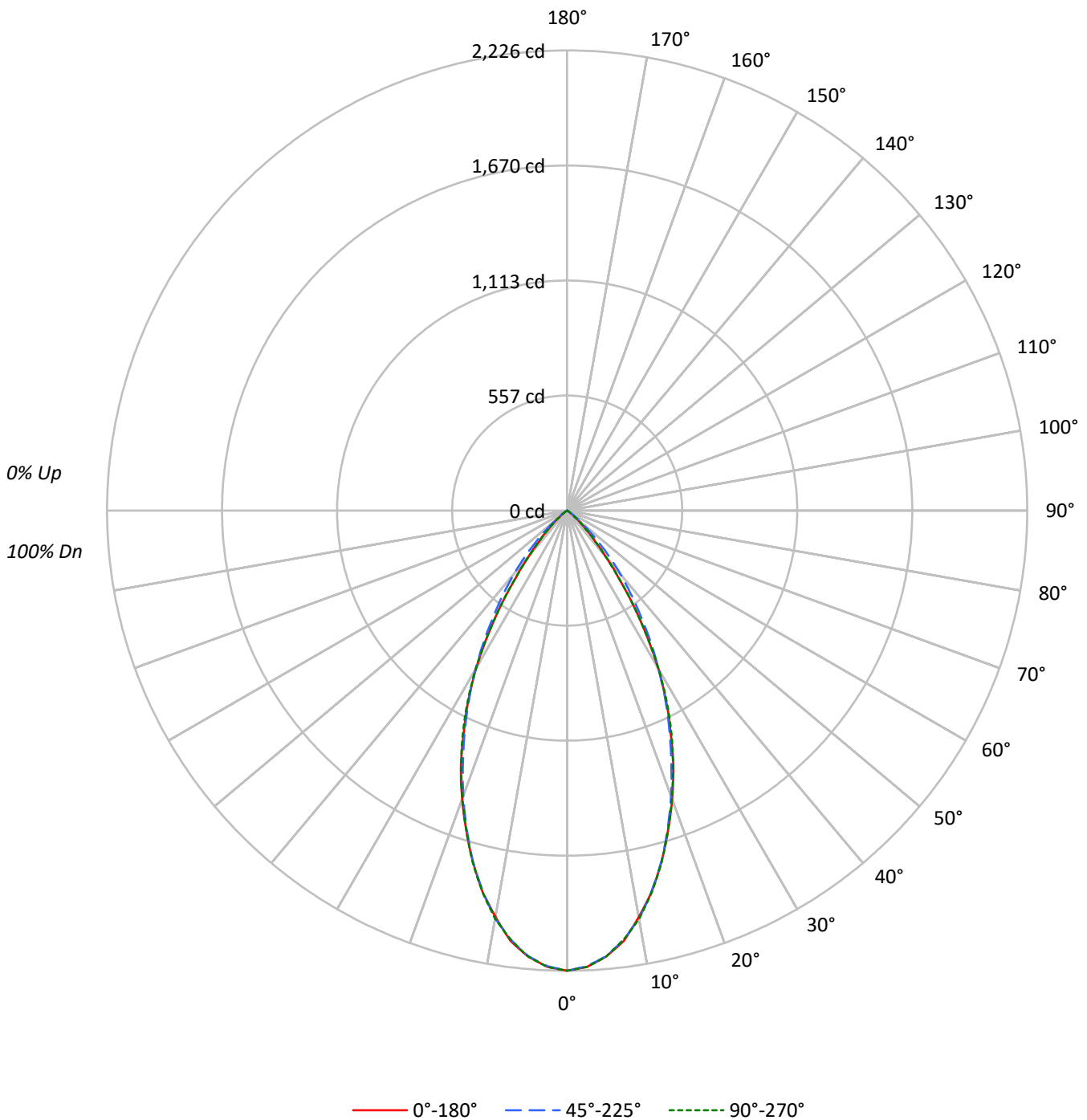
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95					94				
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	91	89					87				
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	87	85	83					81				
4	97	90	84	80	96	89	84	80	87	82	79	85	81	78	83	80	77					75				
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72					70				
6	88	79	73	69	86	78	73	68	77	72	68	75	71	68	74	70	67					66				
7	83	74	68	64	82	74	68	64	72	67	63	71	67	63	70	66	63					61				
8	79	70	64	60	78	69	64	60	68	63	59	67	63	59	66	62	59					58				
9	76	66	60	56	75	66	60	56	65	59	56	64	59	56	63	59	55					54				
10	72	62	57	53	71	62	57	53	61	56	53	60	56	52	60	55	52					51				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	170378	170378	170378
5°	166426	166265	166426
10°	155176	155658	155821
15°	139540	139374	139698
20°	121043	119699	120709
25°	100022	98797	101069
30°	77814	77999	78185
35°	51954	57551	52141
40°	29117	39858	28707
45°	14765	22819	14321
50°	6156	10086	6156
55°	280	3857	280
60°	321	949	321
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°	201.4	11.5
10°-20°	489.1	27.9
20°-30°	538.9	30.7
30°-40°	367.8	21.0
40°-50°	137.1	7.8
50°-60°	20.8	1.2
60°-70°	0.5	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°	1229.4	70.0
0°-40°	1597.2	91.0
0°-60°	1755.0	100.0
0°-90°	1755.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1755.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2226	2226	2226	2226	2226	
5°	2166	2166	2164	2164	2166	202
15°	1761	1759	1759	1759	1763	490
25°	1184	1184	1170	1186	1197	541
35°	556	589	616	591	558	348
45°	136	163	211	159	132	113
55°	2	16	29	16	2	12
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°	2225.9	2225.9	2225.9	2225.9	2225.9
2.5°	2209.4	2209.4	2205.2	2205.2	2209.4
5°	2166.0	2166.0	2163.9	2163.9	2166.0
7.5°	2099.8	2095.7	2093.6	2095.7	2093.6
10°	1996.5	1998.6	2002.7	2002.7	2004.8
12.5°	1889.0	1887.0	1887.0	1891.1	1891.1
15°	1760.9	1758.8	1758.8	1758.8	1762.9
17.5°	1622.4	1622.4	1616.2	1620.3	1622.4
20°	1486.0	1479.8	1469.5	1481.9	1481.9
22.5°	1343.4	1333.1	1316.5	1335.1	1337.2
25°	1184.3	1184.3	1169.8	1186.3	1196.7
27.5°	1035.4	1027.2	1027.2	1033.4	1043.7
30°	880.4	882.5	882.5	884.6	884.6
32.5°	713.0	735.8	748.2	735.8	713.0
35°	556.0	589.0	615.9	591.1	558.0
37.5°	405.1	452.6	502.2	450.6	407.2
40°	291.4	334.8	398.9	330.7	287.3
42.5°	198.4	237.7	299.7	231.5	198.4
45°	136.4	163.3	210.8	159.1	132.3
47.5°	88.9	109.5	136.4	107.5	88.9
50°	51.7	70.3	84.7	66.1	51.7
52.5°	24.8	39.3	49.6	39.3	24.8
55°	2.1	16.5	28.9	16.5	2.1
57.5°	2.1	2.1	14.5	2.1	2.1
60°	2.1	2.1	6.2	2.1	2.1
62.5°	0.0	0.0	2.1	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)