

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: P241795

Luminaire Tested: **PRS420D010-S4M12-44SMDC-4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241795  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-47)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS420D010-S4M12-44SMDC-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, SHALLOW TRIM SPECULAR  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2196.0 lumens  
Efficiency: N/A  
Efficacy: 109.8 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.1  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

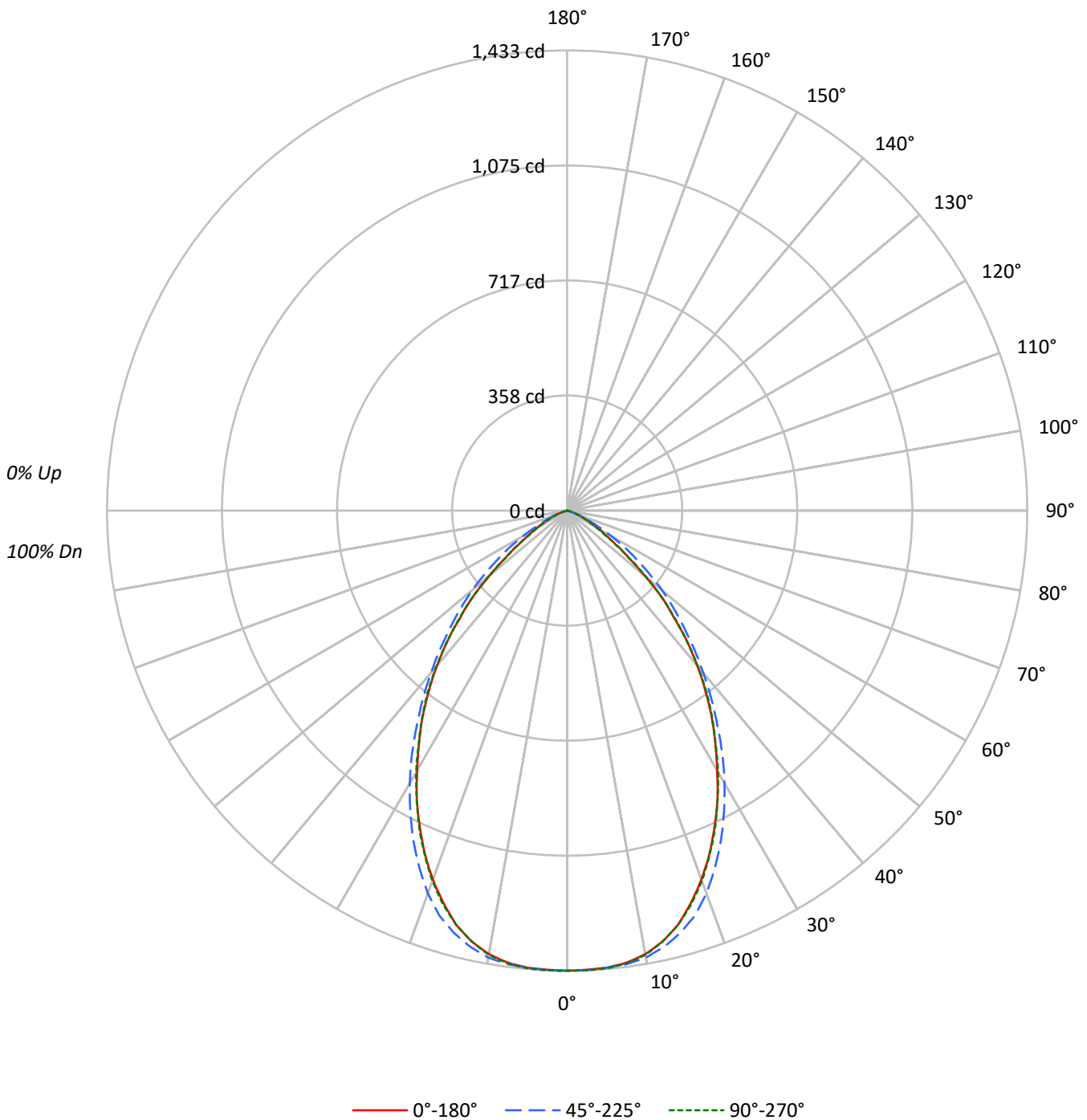
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	101	102	100	98	99	97	95	95	94	93	91
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	51	46	69	58	51	46	57	51	46	56	50	46	55	49	46	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	109679	109679	109679
5°	109768	109768	109937
10°	109016	109855	109187
15°	105822	107882	105822
20°	99596	103302	99946
25°	91728	95757	92091
30°	82578	86608	83152
35°	73333	76165	73530
40°	63030	65847	63250
45°	50920	55618	51396
50°	37689	45953	37951
55°	24875	35004	24875
60°	16595	24234	15936
65°	10994	14127	10994
70°	6311	7273	6311
75°	0	2573	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.8	6.2
10°-20°	377.7	17.2
20°-30°	510.1	23.2
30°-40°	502.6	22.9
40°-50°	383.9	17.5
50°-60°	203.7	9.3
60°-70°	73.0	3.3
70°-80°	9.2	0.4
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°	1023.5	46.6
0°-40°	1526.2	69.5
0°-60°	2113.8	96.3
0°-90°	2196.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2196.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1433	1433	1433	1433	1433	
5°	1429	1429	1429	1431	1431	136
15°	1335	1351	1361	1348	1335	373
25°	1086	1114	1134	1119	1090	498
35°	785	809	815	811	787	488
45°	470	501	514	503	475	364
55°	186	219	262	219	186	174
65°	61	72	78	72	61	63
75°	0	2	9	2	0	6
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°	1432.9	1432.9	1432.9	1432.9	1432.9
2.5°	1430.8	1430.8	1432.9	1432.9	1432.9
5°	1428.6	1428.6	1428.6	1430.8	1430.8
7.5°	1419.9	1419.9	1424.3	1422.1	1422.1
10°	1402.6	1406.9	1413.4	1406.9	1404.8
12.5°	1374.4	1385.3	1391.8	1385.3	1374.4
15°	1335.4	1350.6	1361.4	1348.4	1335.4
17.5°	1281.2	1300.7	1322.4	1300.7	1285.5
20°	1222.7	1246.5	1268.2	1248.7	1227.0
22.5°	1157.6	1183.6	1203.2	1185.8	1159.8
25°	1086.1	1114.3	1133.8	1118.6	1090.4
27.5°	1014.6	1042.7	1057.9	1044.9	1014.6
30°	934.3	964.7	979.9	969.0	940.8
32.5°	858.5	886.7	899.7	888.8	860.6
35°	784.8	808.6	815.1	810.8	786.9
37.5°	706.7	732.7	737.1	737.1	713.2
40°	630.8	654.7	659.0	656.9	633.0
42.5°	552.8	578.8	585.3	578.8	552.8
45°	470.4	500.8	513.8	502.9	474.8
47.5°	401.1	424.9	448.7	427.1	398.9
50°	316.5	357.7	385.9	355.5	318.7
52.5°	242.8	286.2	320.8	284.0	242.8
55°	186.4	219.0	262.3	219.0	186.4
57.5°	140.9	166.9	210.3	164.8	136.6
60°	108.4	127.9	158.3	123.6	104.1
62.5°	82.4	95.4	112.7	93.2	80.2
65°	60.7	71.5	78.0	71.5	60.7
67.5°	43.4	52.0	52.0	52.0	43.4
70°	28.2	34.7	32.5	34.7	28.2
72.5°	10.8	17.3	17.3	17.3	10.8
75°	0.0	2.2	8.7	2.2	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)