

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: P252935

Luminaire Tested: **PRS420D010-S4M12-41SWDC**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252935  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1805-776-2)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS420D010-S4M12-41SWDC  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM SPECULAR  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1913.5 lumens  
Efficiency: N/A  
Efficacy: 95.7 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.1 / 1.15  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

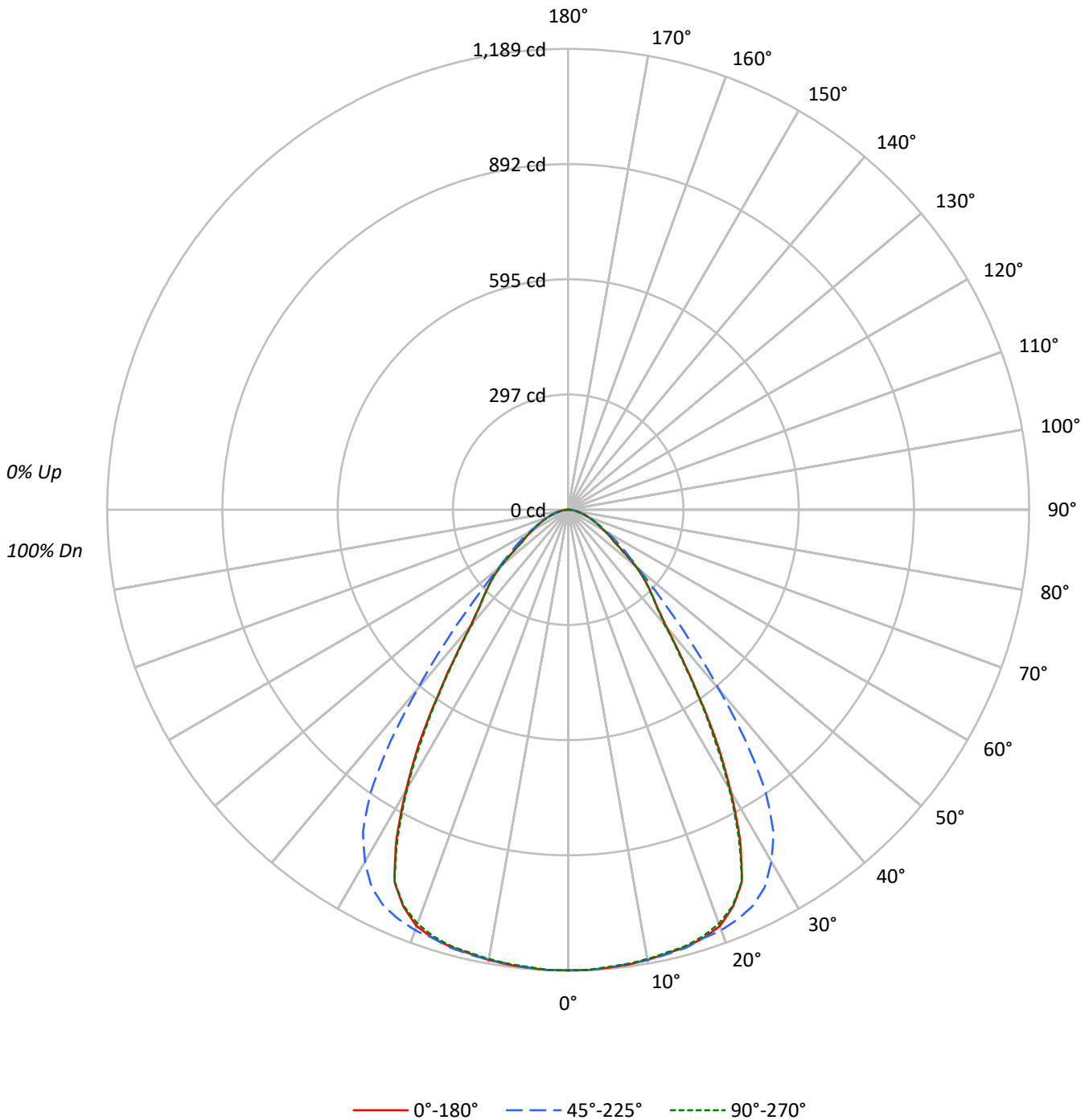
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	86	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	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	51	60	54	50	59	54	50	48
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	47	43	53	47	43	52	47	42	51	46	42	41
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38

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

	0°	45°	90°
0°	90979	90979	90979
5°	91150	91150	90974
10°	91676	91676	91497
15°	92572	92755	92390
20°	93128	94049	92574
25°	89481	95216	89481
30°	74040	92645	73439
35°	54795	82930	54365
40°	39139	60402	38679
45°	32594	40193	32594
50°	27234	28032	27234
55°	19337	22353	19644
60°	16288	17682	16288
65°	13946	14344	13946
70°	12152	12152	12152
75°	10706	10706	10706
80°	8992	8992	8992
85°	7992	7992	7992



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.0	5.9
10°-20°	330.1	17.2
20°-30°	493.2	25.8
30°-40°	439.0	22.9
40°-50°	261.3	13.7
50°-60°	148.0	7.7
60°-70°	79.4	4.1
70°-80°	38.9	2.0
80°-90°	10.8	0.6
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°	936.2	48.9
0°-40°	1375.3	71.9
0°-60°	1784.5	93.3
0°-90°	1913.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1913.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1189	1189	1189	1189	1189	
5°	1186	1186	1186	1186	1184	113
15°	1168	1168	1170	1166	1166	330
25°	1060	1089	1127	1087	1060	473
35°	586	686	888	684	582	370
45°	301	324	371	322	301	234
55°	145	161	168	161	147	138
65°	77	79	79	79	77	78
75°	36	36	36	36	36	39
85°	9	9	9	9	9	11
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1188.6	1188.6	1188.6	1188.6	1188.6
2.5°	1188.6	1188.6	1188.6	1188.6	1188.6
5°	1186.3	1186.3	1186.3	1186.3	1184.0
7.5°	1184.0	1181.8	1181.8	1181.8	1181.8
10°	1179.5	1179.5	1179.5	1177.2	1177.2
12.5°	1172.7	1172.7	1175.0	1172.7	1170.5
15°	1168.2	1168.2	1170.5	1165.9	1165.9
17.5°	1159.1	1161.4	1159.1	1159.1	1154.6
20°	1143.3	1150.1	1154.6	1147.8	1136.5
22.5°	1109.3	1127.4	1143.3	1125.2	1107.1
25°	1059.5	1089.0	1127.4	1086.7	1059.5
27.5°	959.9	1034.6	1098.0	1027.8	953.1
30°	837.7	928.2	1048.2	921.4	830.9
32.5°	715.4	806.0	984.8	801.4	704.1
35°	586.4	686.0	887.5	683.7	581.8
37.5°	477.7	568.2	751.6	563.7	473.2
40°	391.7	461.8	604.5	459.6	387.1
42.5°	337.3	375.8	477.7	373.5	337.3
45°	301.1	323.7	371.3	321.5	301.1
47.5°	267.1	285.3	292.0	283.0	267.1
50°	228.7	249.0	235.4	249.0	228.7
52.5°	181.1	206.0	197.0	208.3	178.9
55°	144.9	160.7	167.5	160.7	147.2
57.5°	126.8	131.3	140.4	131.3	126.8
60°	106.4	110.9	115.5	110.9	106.4
62.5°	90.6	95.1	95.1	95.1	92.8
65°	77.0	79.2	79.2	79.2	77.0
67.5°	65.7	65.7	65.7	65.7	65.7
70°	54.3	54.3	54.3	54.3	54.3
72.5°	45.3	45.3	45.3	45.3	45.3
75°	36.2	36.2	36.2	36.2	36.2
77.5°	29.4	29.4	27.2	29.4	27.2
80°	20.4	20.4	20.4	20.4	20.4
82.5°	15.8	15.8	15.8	15.8	15.8
85°	9.1	9.1	9.1	9.1	9.1
87.5°	4.5	4.5	4.5	4.5	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)