

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: P252970

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P252970
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-S4M12-41SWDMW-4000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM MATTE WHITE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1852.5 lumens
Efficiency: N/A
Efficacy: 92.6 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

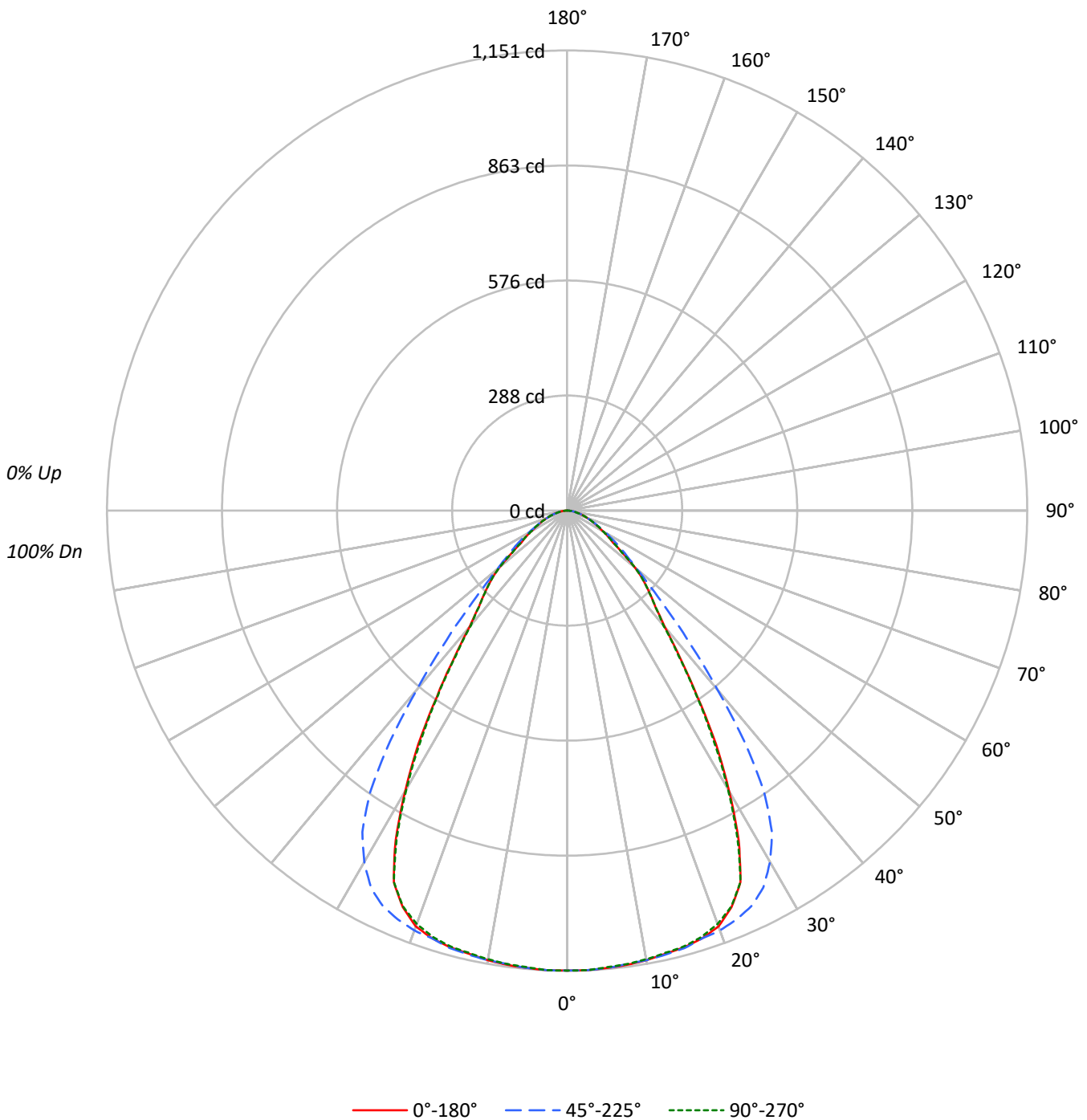
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	86	90	86	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72					72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53					53			
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	47	43	53	47	43	52	47	42	51	46	42	41					41			
10	63	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	88078	88078	88078
5°	88246	88246	88077
10°	88753	88753	88582
15°	89617	89791	89442
20°	90155	91051	89618
25°	86627	92184	86627
30°	71671	89693	71097
35°	53047	80286	52636
40°	37890	58473	37450
45°	31554	38905	31554
50°	26364	27138	26364
55°	18723	21645	19017
60°	15768	17115	15768
65°	13493	13892	13493
70°	11772	11772	11772
75°	10381	10381	10381
80°	8684	8684	8684
85°	7728	7728	7728



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.4	5.9
10°-20°	319.5	17.2
20°-30°	477.5	25.8
30°-40°	425.0	22.9
40°-50°	252.9	13.7
50°-60°	143.3	7.7
60°-70°	76.8	4.1
70°-80°	37.6	2.0
80°-90°	10.4	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°	906.4	48.9
0°-40°	1331.4	71.9
0°-60°	1727.6	93.3
0°-90°	1852.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1852.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1151	1151	1151	1151	1151	
5°	1148	1148	1148	1148	1146	109
15°	1131	1131	1133	1129	1129	319
25°	1026	1054	1092	1052	1026	457
35°	568	664	859	662	563	359
45°	292	313	359	311	292	226
55°	140	156	162	156	142	134
65°	74	77	77	77	74	75
75°	35	35	35	35	35	38
85°	9	9	9	9	9	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1150.7	1150.7	1150.7	1150.7	1150.7
2.5°	1150.7	1150.7	1150.7	1150.7	1150.7
5°	1148.5	1148.5	1148.5	1148.5	1146.3
7.5°	1146.3	1144.1	1144.1	1144.1	1144.1
10°	1141.9	1141.9	1141.9	1139.7	1139.7
12.5°	1135.3	1135.3	1137.5	1135.3	1133.1
15°	1130.9	1130.9	1133.1	1128.7	1128.7
17.5°	1122.2	1124.4	1122.2	1122.2	1117.8
20°	1106.8	1113.4	1117.8	1111.2	1100.2
22.5°	1073.9	1091.5	1106.8	1089.3	1071.8
25°	1025.7	1054.2	1091.5	1052.0	1025.7
27.5°	929.3	1001.6	1063.0	995.0	922.7
30°	810.9	898.6	1014.8	892.0	804.4
32.5°	692.6	780.3	953.4	775.9	681.6
35°	567.7	664.1	859.2	661.9	563.3
37.5°	462.5	550.1	727.7	545.7	458.1
40°	379.2	447.1	585.2	444.9	374.8
42.5°	326.6	363.8	462.5	361.6	326.6
45°	291.5	313.4	359.4	311.2	291.5
47.5°	258.6	276.2	282.7	274.0	258.6
50°	221.4	241.1	227.9	241.1	221.4
52.5°	175.3	199.4	190.7	201.6	173.1
55°	140.3	155.6	162.2	155.6	142.5
57.5°	122.7	127.1	135.9	127.1	122.7
60°	103.0	107.4	111.8	107.4	103.0
62.5°	87.7	92.1	92.1	92.1	89.9
65°	74.5	76.7	76.7	76.7	74.5
67.5°	63.6	63.6	63.6	63.6	63.6
70°	52.6	52.6	52.6	52.6	52.6
72.5°	43.8	43.8	43.8	43.8	43.8
75°	35.1	35.1	35.1	35.1	35.1
77.5°	28.5	28.5	26.3	28.5	26.3
80°	19.7	19.7	19.7	19.7	19.7
82.5°	15.3	15.3	15.3	15.3	15.3
85°	8.8	8.8	8.8	8.8	8.8
87.5°	4.4	4.4	4.4	4.4	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)