

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: P252955

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252955  
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-S4M12-41SWDH-4000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, DEEP TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1799.9 lumens  
Efficiency: N/A  
Efficacy: 90.0 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

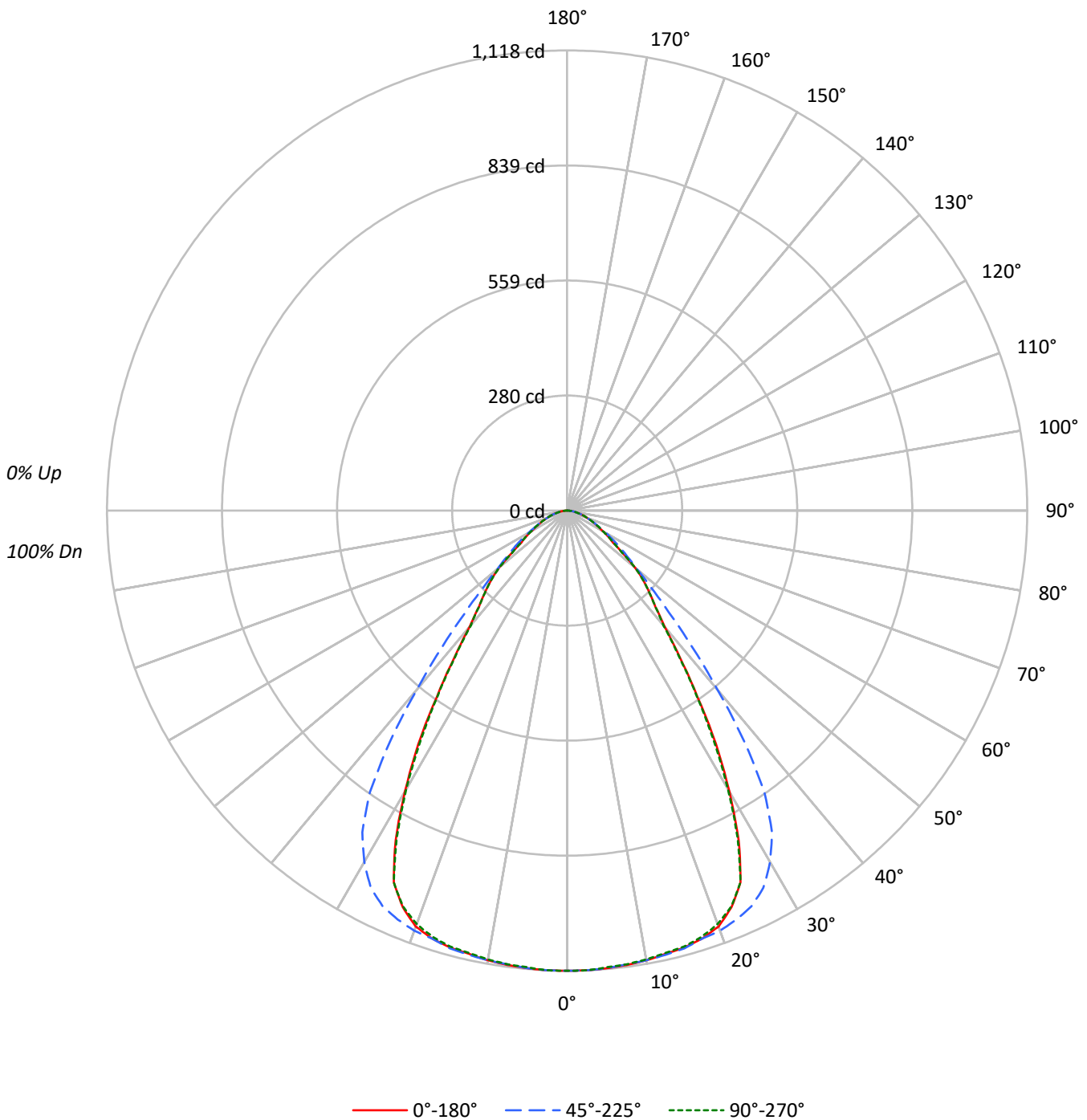
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P252955

CATALOG NUMBER: PRS420D010-S4M12-41SWDH-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P252955

CATALOG NUMBER: PRS420D010-S4M12-41SWDH-4000K

**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°	85576	85576	85576
5°	85733	85733	85572
10°	86235	86235	86064
15°	87073	87239	86906
20°	87598	88461	87076
25°	84169	89566	84169
30°	69638	87138	69073
35°	51533	78006	51141
40°	36811	56815	36381
45°	30656	37800	30656
50°	25614	26376	25614
55°	18189	21032	18469
60°	15324	16625	15324
65°	13113	13493	13113
70°	11436	11436	11436
75°	10085	10085	10085
80°	8463	8463	8463
85°	7465	7465	7465



TEST NUMBER: P252955

CATALOG NUMBER: PRS420D010-S4M12-41SWDH-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.2	5.9
10°-20°	310.5	17.2
20°-30°	463.9	25.8
30°-40°	413.0	22.9
40°-50°	245.7	13.7
50°-60°	139.2	7.7
60°-70°	74.6	4.1
70°-80°	36.6	2.0
80°-90°	10.1	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°	880.6	48.9
0°-40°	1293.6	71.9
0°-60°	1678.5	93.3
0°-90°	1799.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1799.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1118	1118	1118	1118	1118	
5°	1116	1116	1116	1116	1114	106
15°	1099	1099	1101	1097	1097	310
25°	997	1024	1060	1022	997	444
35°	552	645	835	643	547	348
45°	283	304	349	302	283	220
55°	136	151	158	151	138	130
65°	72	74	74	74	72	73
75°	34	34	34	34	34	37
85°	8	8	8	8	8	10
90°	0	0	0	0	0	



TEST NUMBER: P252955

CATALOG NUMBER: PRS420D010-S4M12-41SWDH-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1118.0	1118.0	1118.0	1118.0	1118.0
2.5°	1118.0	1118.0	1118.0	1118.0	1118.0
5°	1115.8	1115.8	1115.8	1115.8	1113.7
7.5°	1113.7	1111.6	1111.6	1111.6	1111.6
10°	1109.5	1109.5	1109.5	1107.3	1107.3
12.5°	1103.1	1103.1	1105.2	1103.1	1100.9
15°	1098.8	1098.8	1100.9	1096.7	1096.7
17.5°	1090.3	1092.4	1090.3	1090.3	1086.0
20°	1075.4	1081.8	1086.0	1079.6	1069.0
22.5°	1043.4	1060.5	1075.4	1058.3	1041.3
25°	996.6	1024.3	1060.5	1022.1	996.6
27.5°	902.9	973.2	1032.8	966.8	896.5
30°	787.9	873.1	985.9	866.7	781.5
32.5°	672.9	758.1	926.3	753.8	662.3
35°	551.5	645.2	834.8	643.1	547.3
37.5°	449.3	534.5	707.0	530.2	445.1
40°	368.4	434.4	568.6	432.3	364.1
42.5°	317.3	353.5	449.3	351.4	317.3
45°	283.2	304.5	349.2	302.4	283.2
47.5°	251.3	268.3	274.7	266.2	251.3
50°	215.1	234.2	221.5	234.2	215.1
52.5°	170.4	193.8	185.3	195.9	168.2
55°	136.3	151.2	157.6	151.2	138.4
57.5°	119.3	123.5	132.0	123.5	119.3
60°	100.1	104.3	108.6	104.3	100.1
62.5°	85.2	89.4	89.4	89.4	87.3
65°	72.4	74.5	74.5	74.5	72.4
67.5°	61.8	61.8	61.8	61.8	61.8
70°	51.1	51.1	51.1	51.1	51.1
72.5°	42.6	42.6	42.6	42.6	42.6
75°	34.1	34.1	34.1	34.1	34.1
77.5°	27.7	27.7	25.6	27.7	25.6
80°	19.2	19.2	19.2	19.2	19.2
82.5°	14.9	14.9	14.9	14.9	14.9
85°	8.5	8.5	8.5	8.5	8.5
87.5°	4.3	4.3	4.3	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)