

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: P252870

Luminaire Tested: **PRS420D010-S4M12-44SWDC-3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252870  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1804-748-2)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS420D010-S4M12-44SWDC-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, SHALLOW TRIM SPECULAR  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2008.0 lumens  
Efficiency: N/A  
Efficacy: 100.4 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.29 / 1.41  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

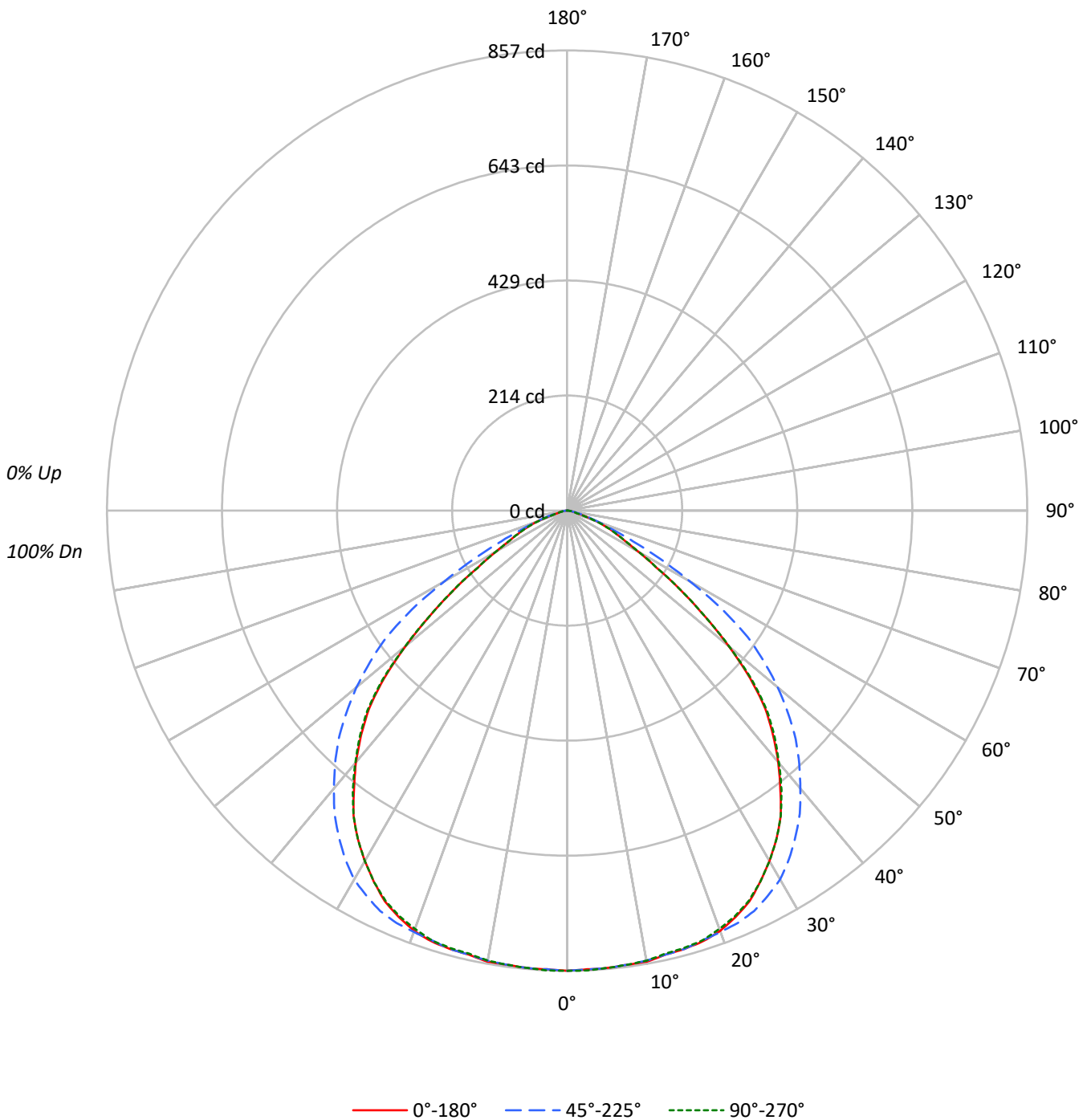
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	85	82	79	77
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	61	59
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	52
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	48	46
7	70	57	49	44	68	57	49	43	55	48	43	54	47	43	52	47	43	41
8	65	52	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	48	41	35	59	48	40	35	47	40	35	46	39	35	45	39	35	33
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

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

	0°	45°	90°
0°	65605	65605	65605
5°	65702	65702	65702
10°	66307	66151	66151
15°	66969	66969	66810
20°	67861	68024	67535
25°	67835	69524	67666
30°	66589	70116	66589
35°	64812	69287	64812
40°	61141	67516	61341
45°	56527	65155	56960
50°	46763	60993	46989
55°	34310	54794	34577
60°	23193	40583	23499
65°	17695	24541	17695
70°	12936	13831	12488
75°	5294	7660	5294
80°	4408	4408	4408
85°	3513	3513	3513



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.5	4.1
10°-20°	238.8	11.9
20°-30°	373.0	18.6
30°-40°	446.2	22.2
40°-50°	428.9	21.4
50°-60°	288.1	14.3
60°-70°	117.6	5.9
70°-80°	29.2	1.5
80°-90°	4.6	0.2
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°	693.4	34.5
0°-40°	1139.6	56.8
0°-60°	1856.5	92.5
0°-90°	2008.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2008.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	857	857	857	857	857	
5°	855	855	855	855	855	82
15°	845	845	845	843	843	239
25°	803	811	823	809	801	369
35°	694	714	742	716	694	431
45°	522	560	602	562	526	396
55°	257	311	411	313	259	233
65°	98	110	136	110	98	99
75°	18	20	26	20	18	26
85°	4	4	4	4	4	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	857.1	857.1	857.1	857.1	857.1
2.5°	855.1	855.1	855.1	857.1	857.1
5°	855.1	855.1	855.1	855.1	855.1
7.5°	853.1	853.1	853.1	853.1	853.1
10°	853.1	851.1	851.1	851.1	851.1
12.5°	847.1	847.1	847.1	847.1	845.1
15°	845.1	845.1	845.1	843.1	843.1
17.5°	841.1	841.1	839.1	839.1	839.1
20°	833.1	835.1	835.1	833.1	829.1
22.5°	819.2	825.2	831.1	823.2	817.2
25°	803.2	811.2	823.2	809.2	801.2
27.5°	779.3	791.3	809.2	791.3	779.3
30°	753.4	769.4	793.3	769.4	753.4
32.5°	725.5	743.4	769.4	743.4	725.5
35°	693.6	713.5	741.5	715.5	693.6
37.5°	651.8	679.7	711.6	683.7	655.7
40°	611.9	641.8	675.7	643.8	613.9
42.5°	568.0	601.9	639.8	603.9	572.0
45°	522.2	560.1	601.9	562.1	526.2
47.5°	462.4	508.3	558.1	514.2	466.4
50°	392.7	450.5	512.2	454.4	394.6
52.5°	322.9	378.7	462.4	382.7	322.9
55°	257.1	310.9	410.6	312.9	259.1
57.5°	197.3	245.2	342.8	249.1	197.3
60°	151.5	187.4	265.1	189.3	153.5
62.5°	119.6	141.5	195.3	139.5	119.6
65°	97.7	109.6	135.5	109.6	97.7
67.5°	77.7	85.7	89.7	85.7	77.7
70°	57.8	65.8	61.8	65.8	55.8
72.5°	33.9	41.9	41.9	41.9	31.9
75°	17.9	19.9	25.9	19.9	17.9
77.5°	14.0	14.0	15.9	14.0	14.0
80°	10.0	10.0	10.0	10.0	10.0
82.5°	6.0	6.0	6.0	6.0	6.0
85°	4.0	4.0	4.0	4.0	4.0
87.5°	2.0	2.0	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)