

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: P252969

Luminaire Tested: **PRS415D010-S4M12-41SWDMW-4000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P252969  
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: PRS415D010-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: 1153.7 lumens  
Efficiency: N/A  
Efficacy: 96.1 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

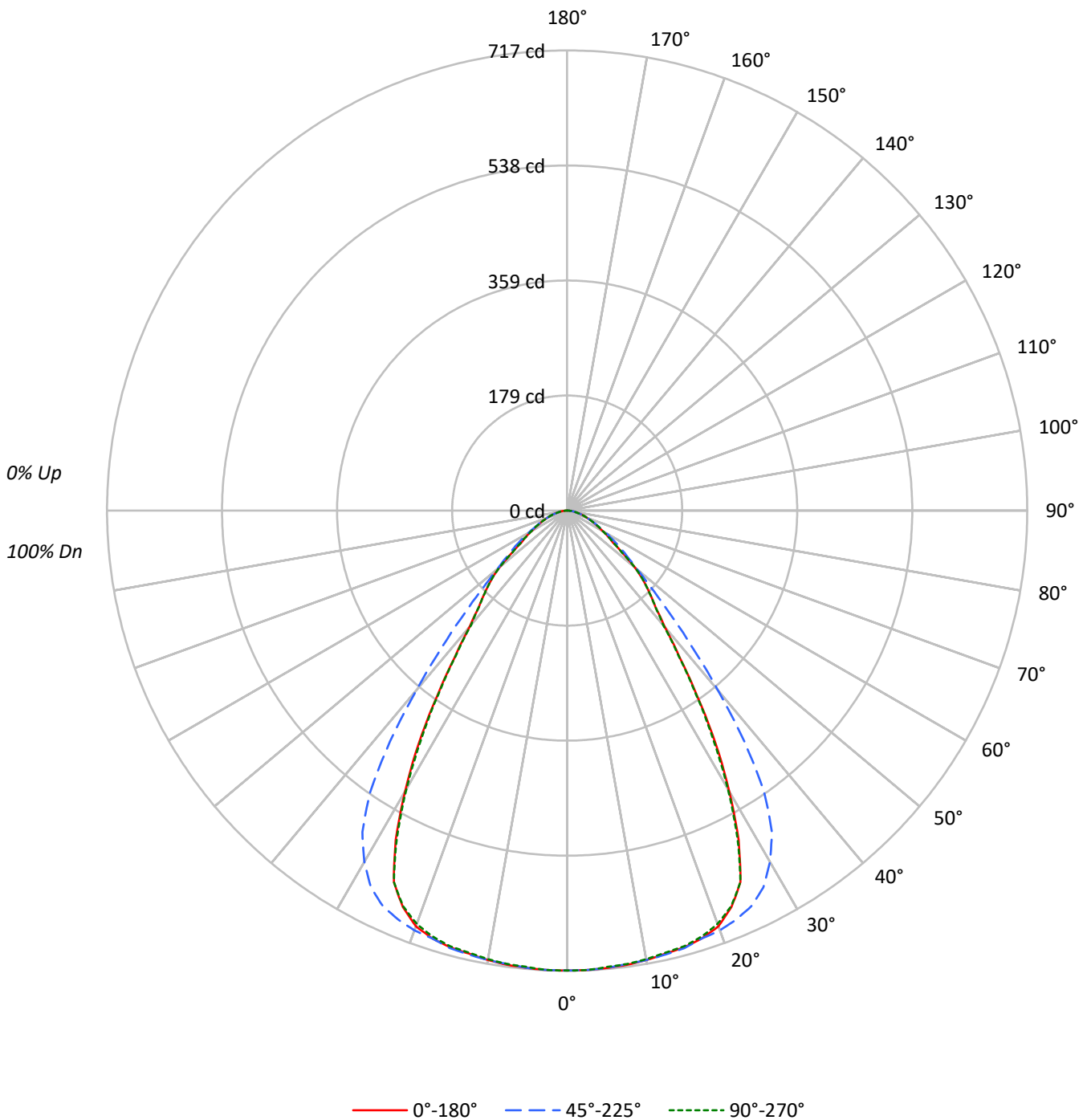
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	54851	54851	54851
5°	54953	54953	54853
10°	55270	55270	55169
15°	55811	55922	55708
20°	56147	56701	55814
25°	53951	57413	53951
30°	44634	55859	44272
35°	33032	50001	32780
40°	23591	36411	23321
45°	19647	24237	19647
50°	16421	16909	16421
55°	11663	13478	11837
60°	9828	10655	9828
65°	8404	8657	8404
70°	7341	7341	7341
75°	6447	6447	6447
80°	5422	5422	5422
85°	4830	4830	4830



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.1	5.9
10°-20°	199.0	17.2
20°-30°	297.4	25.8
30°-40°	264.7	22.9
40°-50°	157.5	13.7
50°-60°	89.2	7.7
60°-70°	47.9	4.1
70°-80°	23.4	2.0
80°-90°	6.5	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°	564.5	48.9
0°-40°	829.2	71.9
0°-60°	1075.9	93.3
0°-90°	1153.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1153.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	717	717	717	717	717	
5°	715	715	715	715	714	68
15°	704	704	706	703	703	199
25°	639	656	680	655	639	285
35°	354	414	535	412	351	223
45°	182	195	224	194	182	141
55°	87	97	101	97	89	83
65°	46	48	48	48	46	47
75°	22	22	22	22	22	24
85°	6	6	6	6	6	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	716.6	716.6	716.6	716.6	716.6
2.5°	716.6	716.6	716.6	716.6	716.6
5°	715.2	715.2	715.2	715.2	713.9
7.5°	713.9	712.5	712.5	712.5	712.5
10°	711.1	711.1	711.1	709.8	709.8
12.5°	707.1	707.1	708.4	707.1	705.7
15°	704.3	704.3	705.7	703.0	703.0
17.5°	698.9	700.2	698.9	698.9	696.1
20°	689.3	693.4	696.1	692.0	685.2
22.5°	668.8	679.8	689.3	678.4	667.5
25°	638.8	656.5	679.8	655.2	638.8
27.5°	578.7	623.8	662.0	619.7	574.6
30°	505.0	559.6	632.0	555.5	500.9
32.5°	431.3	485.9	593.8	483.2	424.5
35°	353.5	413.6	535.1	412.2	350.8
37.5°	288.0	342.6	453.2	339.9	285.3
40°	236.1	278.5	364.4	277.1	233.4
42.5°	203.4	226.6	288.0	225.2	203.4
45°	181.5	195.2	223.9	193.8	181.5
47.5°	161.1	172.0	176.1	170.6	161.1
50°	137.9	150.1	142.0	150.1	137.9
52.5°	109.2	124.2	118.8	125.6	107.8
55°	87.4	96.9	101.0	96.9	88.7
57.5°	76.4	79.2	84.6	79.2	76.4
60°	64.2	66.9	69.6	66.9	64.2
62.5°	54.6	57.3	57.3	57.3	56.0
65°	46.4	47.8	47.8	47.8	46.4
67.5°	39.6	39.6	39.6	39.6	39.6
70°	32.8	32.8	32.8	32.8	32.8
72.5°	27.3	27.3	27.3	27.3	27.3
75°	21.8	21.8	21.8	21.8	21.8
77.5°	17.7	17.7	16.4	17.7	16.4
80°	12.3	12.3	12.3	12.3	12.3
82.5°	9.6	9.6	9.6	9.6	9.6
85°	5.5	5.5	5.5	5.5	5.5
87.5°	2.7	2.7	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)