

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: P241724

Luminaire Tested: **PRS415D010-S4M12-44SNDH-3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241724  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-43)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-44SNDH-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SHALLOW TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1150.0 lumens  
Efficiency: N/A  
Efficacy: 95.8 lumens/watt  
Spacing Criteria (0/90/45): 0.88 / 0.88 / 0.92  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

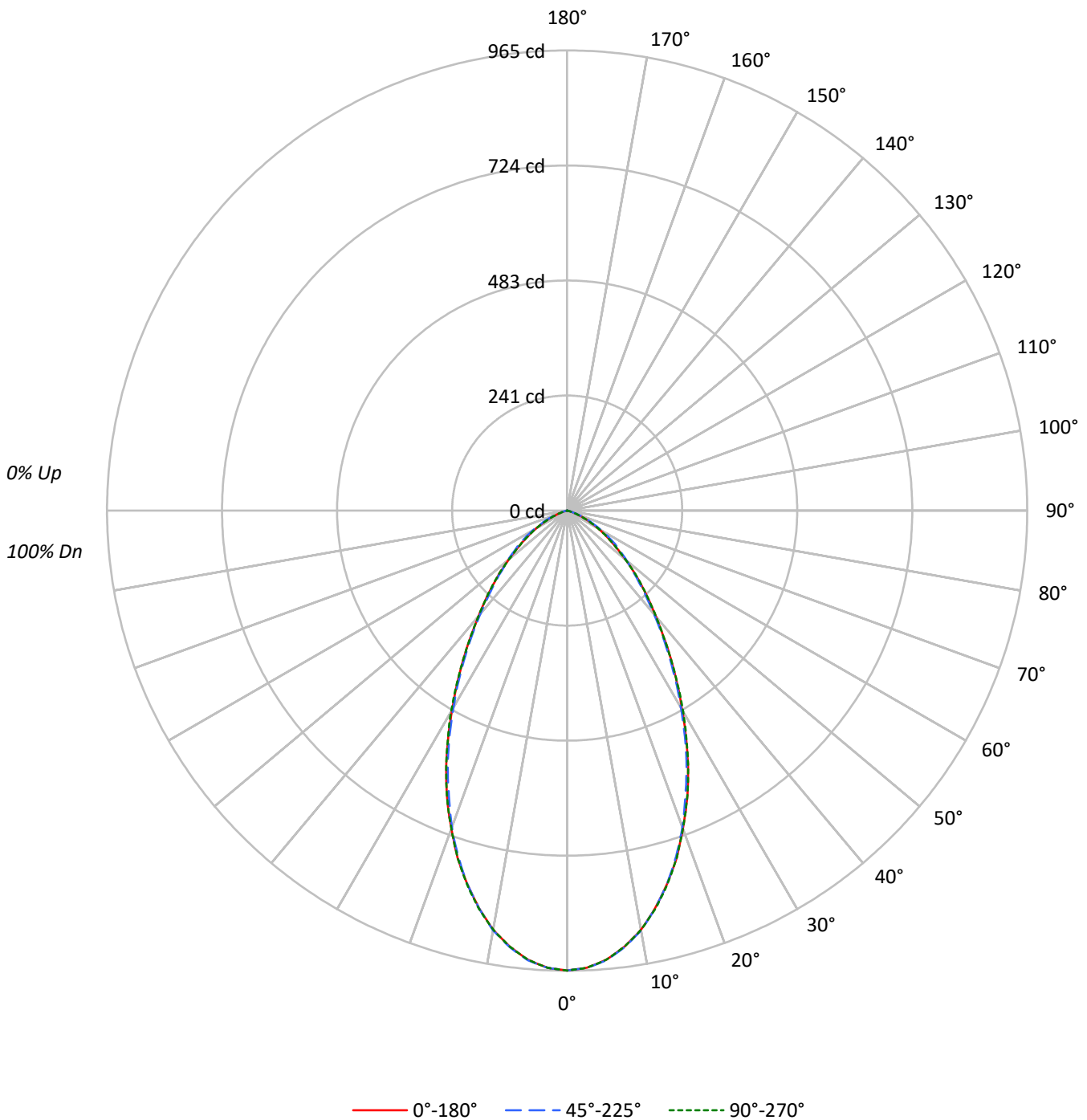
Input Watts (W): 12  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81					81			
3	98	90	84	79	96	89	83	79	86	81	77	84	80	76	81	78	75	73					73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	53	63	57	52	62	56	52	60	55	52	50					50			
8	72	60	53	49	70	60	53	48	59	52	48	57	52	48	56	51	48	46					46			
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43					43			
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40					40			

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

	0°	45°	90°
0°	73841	73841	73841
5°	72633	72733	72633
10°	69369	69470	69369
15°	64195	64195	64298
20°	57809	57597	57809
25°	50691	50040	50691
30°	42575	42115	43026
35°	35387	34779	35387
40°	28827	28307	28957
45°	23696	23144	23836
50°	19017	19327	18862
55°	14960	16334	14960
60°	11436	12614	11436
65°	7933	9092	7697
70°	4028	5192	4028
75°	384	1538	384
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.6	7.7
10°-20°	226.1	19.7
20°-30°	272.6	23.7
30°-40°	235.6	20.5
40°-50°	168.7	14.7
50°-60°	104.3	9.1
60°-70°	47.6	4.1
70°-80°	6.7	0.6
80°-90°	0.0	0.0
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°	587.2	51.1
0°-40°	822.8	71.5
0°-60°	1095.8	95.3
0°-90°	1150.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1150.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	965	965	965	965	965	
5°	945	945	947	945	945	89
15°	810	810	810	811	811	226
25°	600	596	592	598	600	274
35°	379	375	372	377	379	237
45°	219	216	214	218	220	170
55°	112	115	122	115	112	102
65°	44	48	50	48	42	44
75°	1	3	5	3	1	5
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	964.7	964.7	964.7	964.7	964.7
2.5°	959.5	959.5	959.5	959.5	959.5
5°	945.3	945.3	946.6	945.3	945.3
7.5°	922.2	923.5	923.5	923.5	922.2
10°	892.5	892.5	893.8	892.5	892.5
12.5°	853.9	853.9	853.9	855.2	855.2
15°	810.1	810.1	810.1	811.4	811.4
17.5°	763.7	762.5	759.9	761.2	763.7
20°	709.7	708.4	707.1	708.4	709.7
22.5°	656.8	651.7	647.8	654.3	656.8
25°	600.2	596.3	592.5	597.6	600.2
27.5°	540.9	538.4	534.5	538.4	542.2
30°	481.7	481.7	476.5	481.7	486.8
32.5°	428.9	427.6	423.7	426.3	430.2
35°	378.7	374.8	372.2	377.4	378.7
37.5°	331.0	329.7	325.8	329.7	331.0
40°	288.5	285.9	283.3	287.2	289.8
42.5°	252.4	249.9	246.0	249.9	252.4
45°	218.9	216.4	213.8	217.7	220.2
47.5°	189.3	188.0	185.5	188.0	189.3
50°	159.7	162.3	162.3	161.0	158.4
52.5°	133.9	135.2	140.4	135.2	133.9
55°	112.1	114.6	122.4	114.6	112.1
57.5°	92.7	95.3	101.7	95.3	92.7
60°	74.7	78.6	82.4	78.6	74.7
62.5°	58.0	63.1	64.4	61.8	58.0
65°	43.8	47.7	50.2	47.7	42.5
67.5°	29.6	34.8	36.1	34.8	29.6
70°	18.0	23.2	23.2	23.2	18.0
72.5°	9.0	11.6	12.9	11.6	9.0
75°	1.3	2.6	5.2	2.6	1.3
77.5°	0.0	0.0	1.3	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)