

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: P241909

Luminaire Tested: **PRS415D010-S4M12-41SNDH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241909  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-55)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS415D010-S4M12-41SNDH  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, DEEP TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

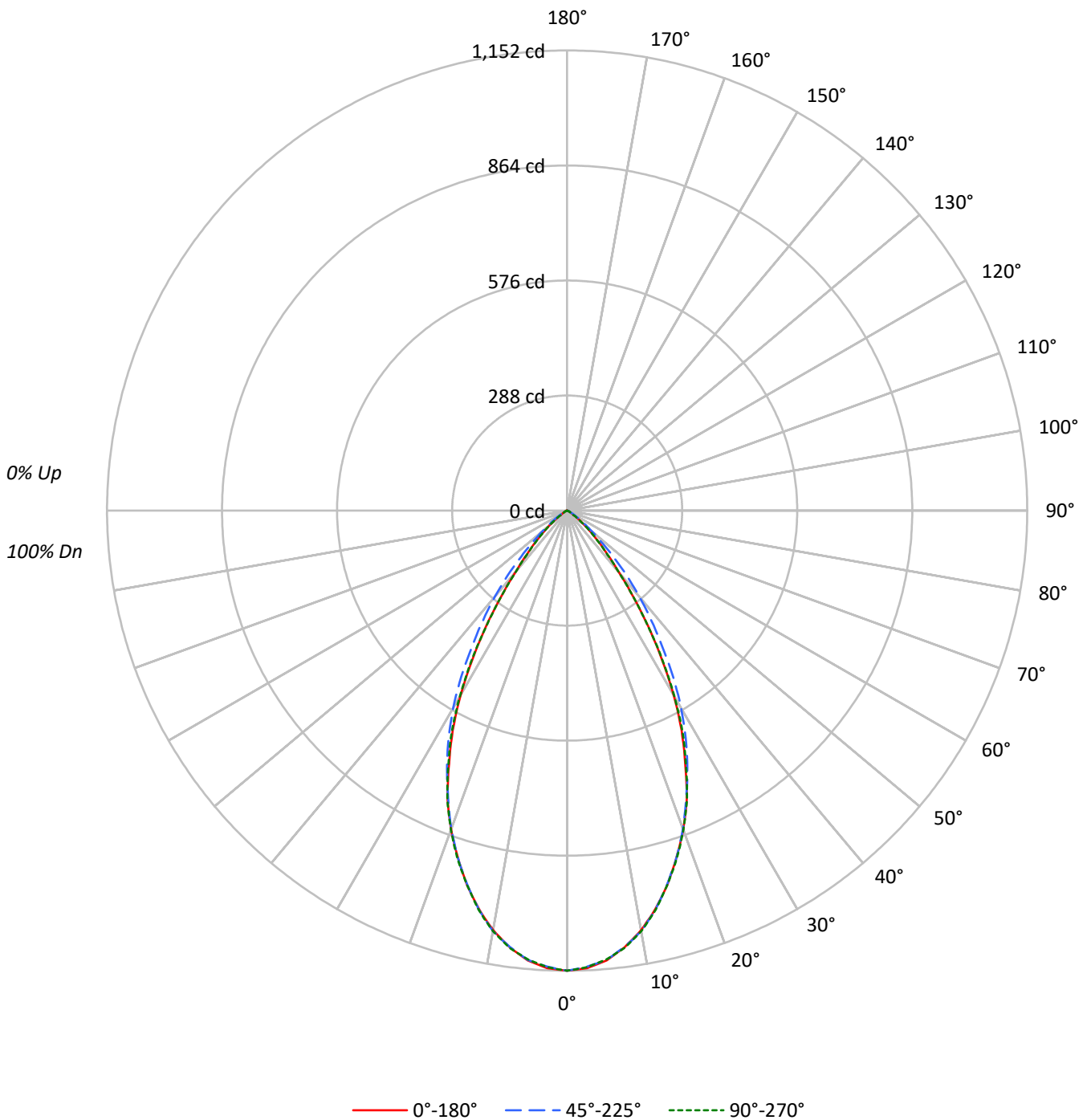
Lumens per Lamp: N/A  
Luminaire Lumens: 1085.8 lumens  
Efficiency: N/A  
Efficacy: 90.5 lumens/watt  
Spacing Criteria (0/90/45): 0.87 / 0.87 / 0.91  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

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	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93					93			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86					86			
3	101	95	89	85	99	93	88	84	91	86	83	88	85	82	86	83	81	79					79			
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	74	73					73			
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67					67			
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	63					63			
7	81	72	65	61	80	71	65	61	70	64	60	68	64	60	67	63	60	58					58			
8	77	67	61	57	76	67	61	56	65	60	56	64	59	56	63	59	56	54					54			
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51					51			
10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	48					48			

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

	0°	45°	90°
0°	88170	88170	88170
5°	86871	86771	86663
10°	82901	83110	83110
15°	76811	76700	76811
20°	69180	69066	69286
25°	59119	60133	59457
30°	47136	50432	47489
35°	33013	38741	32892
40°	20114	28108	19984
45°	12124	17612	11832
50°	6823	9526	6669
55°	2496	4978	2496
60°	1638	2449	1638
65°	960	1449	960
70°	604	895	604
75°	384	799	384
80°	573	573	573
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.8	9.7
10°-20°	270.5	24.9
20°-30°	322.5	29.7
30°-40°	240.3	22.1
40°-50°	107.6	9.9
50°-60°	29.3	2.7
60°-70°	7.1	0.7
70°-80°	2.3	0.2
80°-90°	0.4	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°	698.8	64.4
0°-40°	939.1	86.5
0°-60°	1076.0	99.1
0°-90°	1085.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1085.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1152	1152	1152	1152	1152	
5°	1131	1127	1129	1128	1128	106
15°	969	968	968	971	969	270
25°	700	711	712	712	704	319
35°	353	385	415	385	352	221
45°	112	131	163	131	109	90
55°	19	29	37	29	19	22
65°	5	7	8	7	5	6
75°	1	3	3	3	1	2
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°	1151.9	1151.9	1151.9	1151.9	1151.9
2.5°	1146.6	1143.9	1142.6	1142.6	1143.9
5°	1130.6	1126.6	1129.3	1127.9	1127.9
7.5°	1102.6	1102.6	1101.3	1103.9	1103.9
10°	1066.6	1067.9	1069.3	1067.9	1069.3
12.5°	1021.3	1019.9	1022.6	1023.9	1023.9
15°	969.3	967.9	967.9	970.6	969.3
17.5°	910.6	911.9	910.6	911.9	913.3
20°	849.3	849.3	847.9	849.3	850.6
22.5°	782.6	782.6	778.6	781.3	783.9
25°	700.0	710.6	712.0	712.0	704.0
27.5°	620.0	628.0	642.6	630.6	626.6
30°	533.3	549.3	570.6	552.0	537.3
32.5°	441.3	470.6	493.3	468.0	445.3
35°	353.3	385.3	414.6	385.3	352.0
37.5°	270.6	305.3	345.3	306.6	270.6
40°	201.3	234.7	281.3	233.3	200.0
42.5°	149.3	177.3	220.0	176.0	149.3
45°	112.0	130.7	162.7	130.7	109.3
47.5°	81.3	97.3	116.0	96.0	81.3
50°	57.3	69.3	80.0	69.3	56.0
52.5°	36.0	46.7	54.7	46.7	36.0
55°	18.7	29.3	37.3	29.3	18.7
57.5°	13.3	16.0	24.0	16.0	13.3
60°	10.7	12.0	16.0	12.0	10.7
62.5°	8.0	9.3	9.3	9.3	8.0
65°	5.3	6.7	8.0	6.7	5.3
67.5°	4.0	5.3	5.3	5.3	4.0
70°	2.7	4.0	4.0	4.0	2.7
72.5°	2.7	2.7	2.7	2.7	2.7
75°	1.3	2.7	2.7	2.7	1.3
77.5°	1.3	1.3	1.3	1.3	1.3
80°	1.3	1.3	1.3	1.3	1.3
82.5°	0.0	1.3	1.3	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)