

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: P241768

Luminaire Tested: **PRS410D010-S4M12-44SNDC-3000K**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241768  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-46)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS410D010-S4M12-44SNDC-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW 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: 865.9 lumens  
Efficiency: N/A  
Efficacy: 86.6 lumens/watt  
Spacing Criteria (0/90/45): 0.9 / 0.9 / 0.95  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

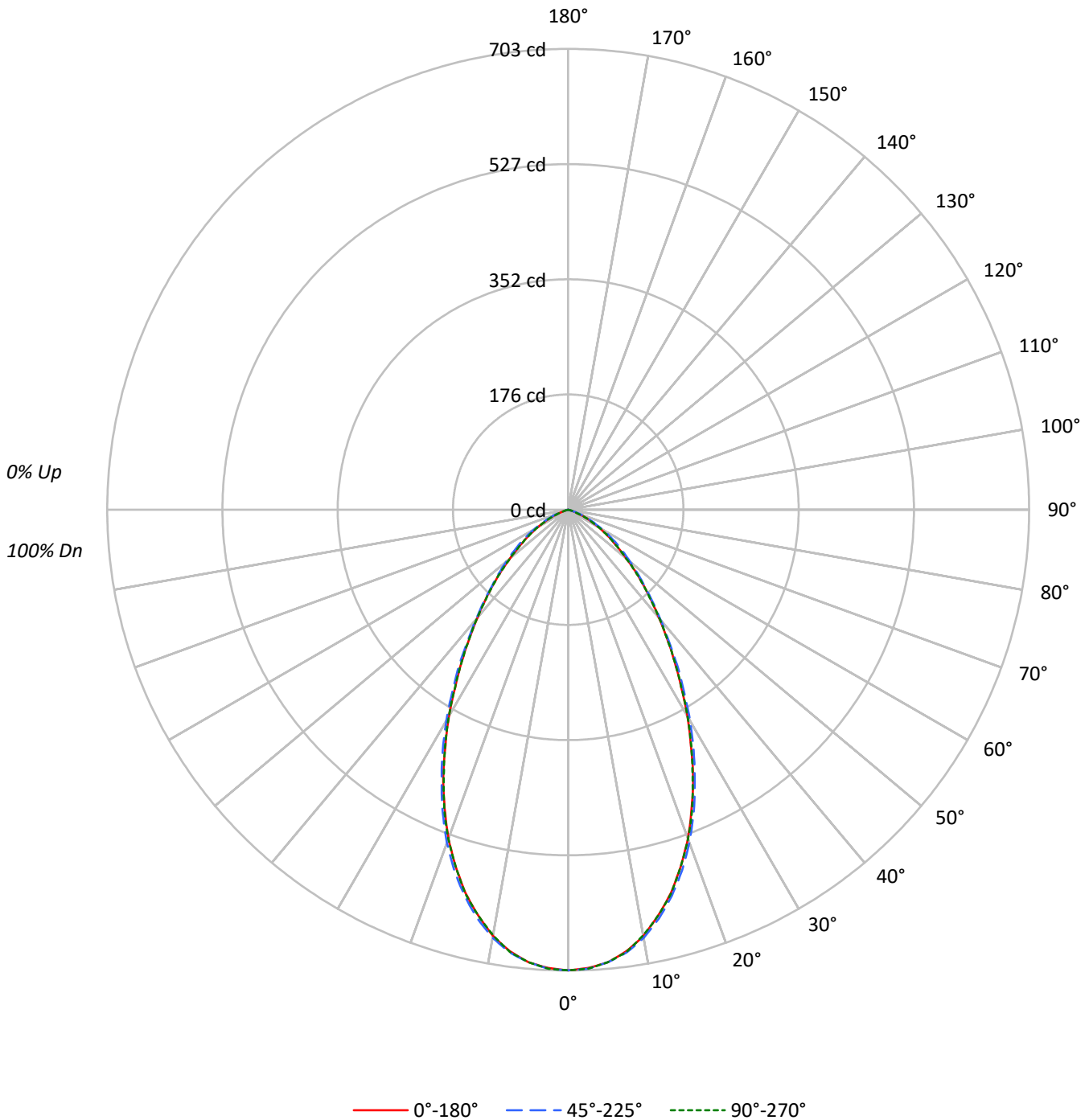
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	96	95	94	93	91				91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82				82
3	98	90	84	80	96	89	83	79	86	81	78	84	80	76	81	78	75	73				73
4	92	83	76	71	90	82	75	70	79	74	70	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	63	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	53	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	45	41	51	45	41	50	45	41	40				40

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

	0°	45°	90°
0°	53787	53787	53787
5°	53247	53247	53247
10°	51314	51539	51244
15°	47958	48339	48037
20°	43481	44027	43554
25°	38073	38563	37904
30°	32163	32844	32163
35°	26425	27061	26425
40°	21503	21893	21603
45°	17450	17764	17450
50°	13790	14599	13790
55°	10823	11984	10823
60°	8282	9155	8282
65°	5597	6466	5597
70°	2797	3670	2797
75°	0	858	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.2	7.5
10°-20°	169.6	19.6
20°-30°	207.8	24.0
30°-40°	180.0	20.8
40°-50°	127.6	14.7
50°-60°	77.2	8.9
60°-70°	34.4	4.0
70°-80°	4.2	0.5
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°	442.6	51.1
0°-40°	622.5	71.9
0°-60°	827.3	95.5
0°-90°	865.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	865.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	703	703	703	703	703	
5°	693	693	693	693	693	65
15°	605	608	610	609	606	169
25°	451	457	457	456	449	206
35°	283	289	290	288	283	177
45°	161	165	164	166	161	125
55°	81	85	90	86	81	73
65°	31	35	36	35	31	31
75°	0	1	3	1	0	3
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°	702.7	702.7	702.7	702.7	702.7
2.5°	699.8	699.8	700.8	700.8	700.8
5°	693.0	693.0	693.0	693.0	693.0
7.5°	679.5	679.5	681.5	680.5	680.5
10°	660.2	660.2	663.1	661.2	659.3
12.5°	634.2	637.1	639.0	637.1	634.2
15°	605.2	608.1	610.0	609.1	606.2
17.5°	570.5	575.3	577.2	575.3	570.5
20°	533.8	537.6	540.5	537.6	534.7
22.5°	492.3	497.1	500.0	497.1	494.2
25°	450.8	456.6	456.6	455.6	448.8
27.5°	405.4	412.2	414.1	412.2	406.4
30°	363.9	368.7	371.6	368.7	363.9
32.5°	320.5	327.2	328.2	327.2	321.4
35°	282.8	288.6	289.6	287.6	282.8
37.5°	247.1	252.9	251.0	252.9	247.1
40°	215.2	220.1	219.1	220.1	216.2
42.5°	187.3	191.1	190.2	191.1	186.3
45°	161.2	165.1	164.1	166.0	161.2
47.5°	138.0	141.9	142.9	141.9	138.0
50°	115.8	121.6	122.6	121.6	115.8
52.5°	96.5	101.4	105.2	102.3	96.5
55°	81.1	84.9	89.8	85.9	81.1
57.5°	66.6	70.5	74.3	71.4	66.6
60°	54.1	57.9	59.8	57.9	54.1
62.5°	41.5	46.3	47.3	46.3	41.5
65°	30.9	34.7	35.7	34.7	30.9
67.5°	21.2	25.1	25.1	25.1	21.2
70°	12.5	15.4	16.4	16.4	12.5
72.5°	4.8	7.7	8.7	7.7	5.8
75°	0.0	1.0	2.9	1.0	0.0
77.5°	0.0	0.0	0.0	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)