

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: P241635

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

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241635  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-37)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS420D010-S4M12-44SNDMB-3000K  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SHALLOW TRIM MATTE BLACK  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1664.6 lumens  
Efficiency: N/A  
Efficacy: 83.2 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

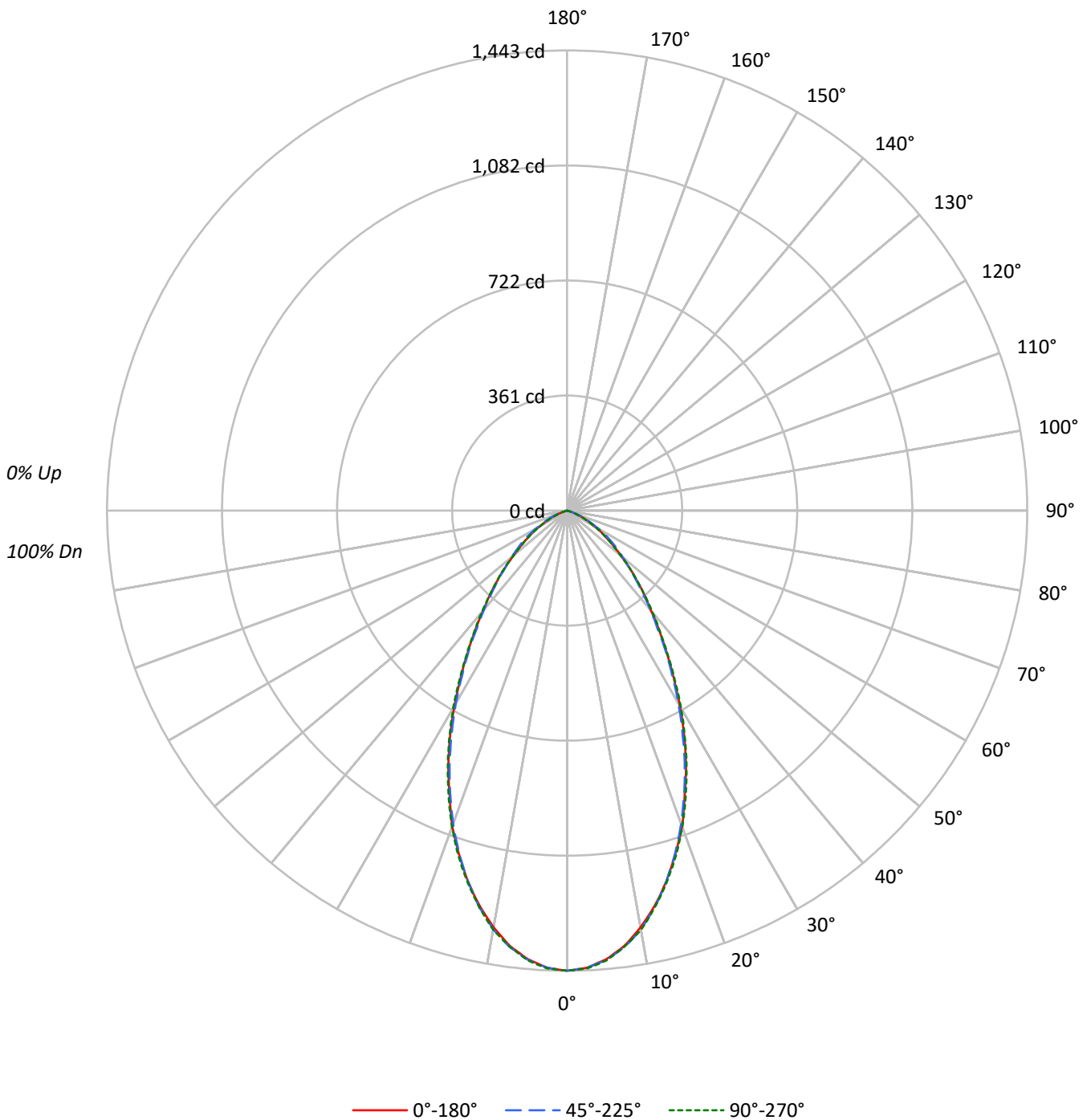
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	101	99	99	97	96	95	94	93	91					91			
2	105	99	95	90	103	98	93	89	94	91	87	91	88	85	88	86	84	82					82			
3	98	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	75	74					74			
4	92	83	76	71	90	82	76	71	80	74	70	78	73	69	76	72	68	67					67			
5	86	76	70	64	85	75	69	64	74	68	63	72	67	63	70	66	62	61					61			
6	81	71	64	58	80	70	63	58	68	62	58	67	61	57	65	61	57	55					55			
7	76	66	58	53	75	65	58	53	63	57	53	62	57	53	61	56	52	51					51			
8	72	61	54	49	71	60	54	49	59	53	49	58	53	49	57	52	48	47					47			
9	68	57	50	46	67	56	50	45	55	49	45	54	49	45	54	49	45	43					43			
10	64	53	47	42	63	53	47	42	52	46	42	51	46	42	50	45	42	40					40			

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

	0°	45°	90°
0°	110452	110452	110452
5°	108484	108646	108807
10°	103148	103630	103785
15°	95314	95314	95647
20°	85838	85162	86001
25°	74482	73612	74837
30°	62400	61666	63124
35°	50879	50300	51262
40°	40957	40548	41577
45°	33395	32724	33611
50°	26138	27115	26138
55°	20725	22660	20444
60°	15217	17437	15217
65°	10505	12370	10124
70°	5103	6960	5103
75°	0	1834	0
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.3	8.0
10°-20°	335.9	20.2
20°-30°	401.3	24.1
30°-40°	340.5	20.5
40°-50°	238.7	14.3
50°-60°	143.9	8.6
60°-70°	63.9	3.8
70°-80°	8.0	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
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0°-30°	869.6	52.2
0°-40°	1210.1	72.7
0°-60°	1592.7	95.7
0°-90°	1664.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1664.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1443	1443	1443	1443	1443	
5°	1412	1414	1414	1414	1416	132
15°	1203	1203	1203	1209	1207	336
25°	882	878	872	880	886	403
35°	544	542	538	547	549	342
45°	308	306	302	308	310	239
55°	155	157	170	157	153	139
65°	58	64	68	64	56	58
75°	0	2	6	2	0	6
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°	1443.0	1443.0	1443.0	1443.0	1443.0
2.5°	1434.7	1434.7	1434.7	1434.7	1436.8
5°	1411.9	1414.0	1414.0	1414.0	1416.1
7.5°	1376.7	1376.7	1380.9	1380.9	1378.8
10°	1327.1	1327.1	1333.3	1335.3	1335.3
12.5°	1269.1	1269.1	1273.2	1275.3	1273.2
15°	1202.8	1202.8	1202.8	1209.0	1207.0
17.5°	1128.3	1128.3	1126.2	1132.4	1134.5
20°	1053.8	1049.6	1045.5	1049.6	1055.8
22.5°	962.7	962.7	958.5	966.8	971.0
25°	881.9	877.8	871.6	879.9	886.1
27.5°	795.0	790.8	782.6	788.8	799.1
30°	706.0	703.9	697.7	703.9	714.2
32.5°	621.1	619.0	612.8	621.1	627.3
35°	544.5	542.4	538.3	546.6	548.6
37.5°	474.1	470.0	465.8	474.1	478.2
40°	409.9	409.9	405.8	409.9	416.1
42.5°	358.2	356.1	349.9	356.1	360.2
45°	308.5	306.4	302.3	308.5	310.5
47.5°	262.9	265.0	260.9	265.0	265.0
50°	219.5	225.7	227.7	225.7	219.5
52.5°	184.3	188.4	196.7	188.4	182.2
55°	155.3	157.3	169.8	157.3	153.2
57.5°	126.3	130.4	140.8	130.4	124.2
60°	99.4	107.7	113.9	105.6	99.4
62.5°	78.7	84.9	89.0	82.8	76.6
65°	58.0	64.2	68.3	64.2	55.9
67.5°	39.3	47.6	49.7	45.5	37.3
70°	22.8	29.0	31.1	29.0	22.8
72.5°	10.4	14.5	16.6	14.5	10.4
75°	0.0	2.1	6.2	2.1	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)