

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: P241730

Luminaire Tested: **PRS420D010-S4M12-44SNDH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241730  
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: PRS420D010-S4M12-44SNDH  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SHALLOW TRIM HAZE  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

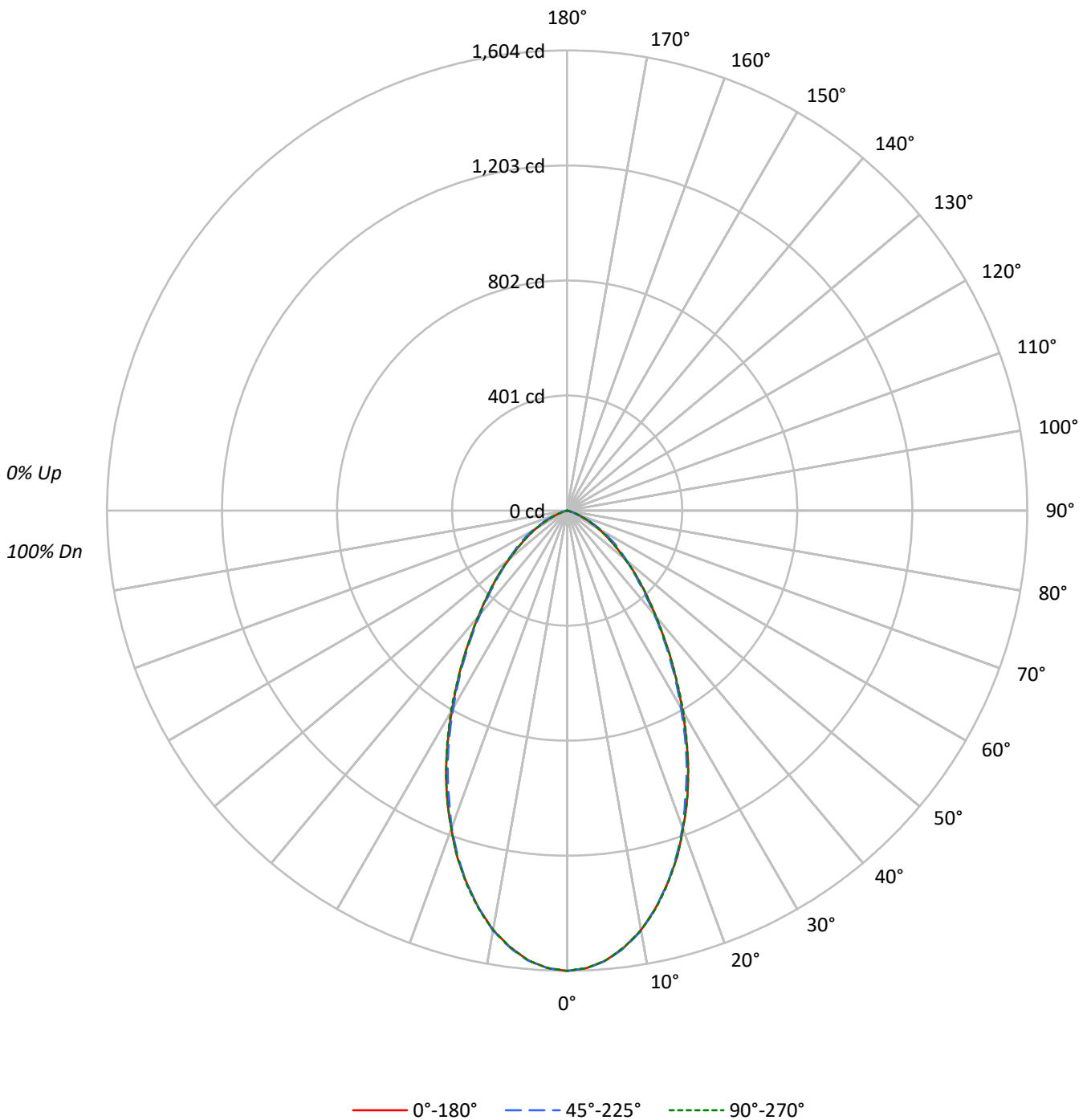
Lumens per Lamp: N/A  
Luminaire Lumens: 1912.7 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Spacing Criteria (0/90/45): 0.88 / 0.88 / 0.92  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

Input Watts (W): 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	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°	122814	122814	122814
5°	120817	120978	120817
10°	115382	115553	115382
15°	106773	106773	106947
20°	96142	95800	96142
25°	84313	83223	84313
30°	70814	70054	71565
35°	58850	57850	58850
40°	47942	47092	48162
45°	39424	38493	39652
50°	31628	32140	31378
55°	24875	27157	24875
60°	19013	20988	19013
65°	13185	15123	12805
70°	6714	8639	6714
75°	621	2543	621
80°	0	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.3	7.7
10°-20°	376.0	19.7
20°-30°	453.4	23.7
30°-40°	391.9	20.5
40°-50°	280.5	14.7
50°-60°	173.5	9.1
60°-70°	79.1	4.1
70°-80°	11.0	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°	976.7	51.1
0°-40°	1368.5	71.5
0°-60°	1822.6	95.3
0°-90°	1912.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1912.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1604	1604	1604	1604	1604	
5°	1572	1572	1574	1572	1572	147
15°	1347	1347	1347	1350	1350	376
25°	998	992	985	994	998	456
35°	630	623	619	628	630	394
45°	364	360	356	362	366	283
55°	186	191	204	191	186	169
65°	73	79	84	79	71	73
75°	2	4	9	4	2	8
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°	1604.5	1604.5	1604.5	1604.5	1604.5
2.5°	1595.9	1595.9	1595.9	1595.9	1595.9
5°	1572.4	1572.4	1574.5	1572.4	1572.4
7.5°	1533.8	1535.9	1535.9	1535.9	1533.8
10°	1484.5	1484.5	1486.7	1484.5	1484.5
12.5°	1420.3	1420.3	1420.3	1422.4	1422.4
15°	1347.4	1347.4	1347.4	1349.6	1349.6
17.5°	1270.3	1268.2	1263.9	1266.0	1270.3
20°	1180.3	1178.2	1176.1	1178.2	1180.3
22.5°	1092.5	1083.9	1077.5	1088.2	1092.5
25°	998.3	991.8	985.4	994.0	998.3
27.5°	899.7	895.4	889.0	895.4	901.9
30°	801.2	801.2	792.6	801.2	809.7
32.5°	713.3	711.2	704.8	709.1	715.5
35°	629.8	623.4	619.1	627.7	629.8
37.5°	550.5	548.4	542.0	548.4	550.5
40°	479.8	475.6	471.3	477.7	482.0
42.5°	419.9	415.6	409.2	415.6	419.9
45°	364.2	359.9	355.6	362.0	366.3
47.5°	314.9	312.8	308.5	312.8	314.9
50°	265.6	269.9	269.9	267.8	263.5
52.5°	222.8	224.9	233.5	224.9	222.8
55°	186.4	190.7	203.5	190.7	186.4
57.5°	154.2	158.5	169.2	158.5	154.2
60°	124.2	130.7	137.1	130.7	124.2
62.5°	96.4	105.0	107.1	102.8	96.4
65°	72.8	79.3	83.5	79.3	70.7
67.5°	49.3	57.8	60.0	57.8	49.3
70°	30.0	38.6	38.6	38.6	30.0
72.5°	15.0	19.3	21.4	19.3	15.0
75°	2.1	4.3	8.6	4.3	2.1
77.5°	0.0	0.0	2.1	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)