

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: P241968

Luminaire Tested: **PRS410D010-S4M12-41SMDC**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P241968  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-59)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: PRS410D010-S4M12-41SMDC  
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, DEEP TRIM SPECULAR  
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

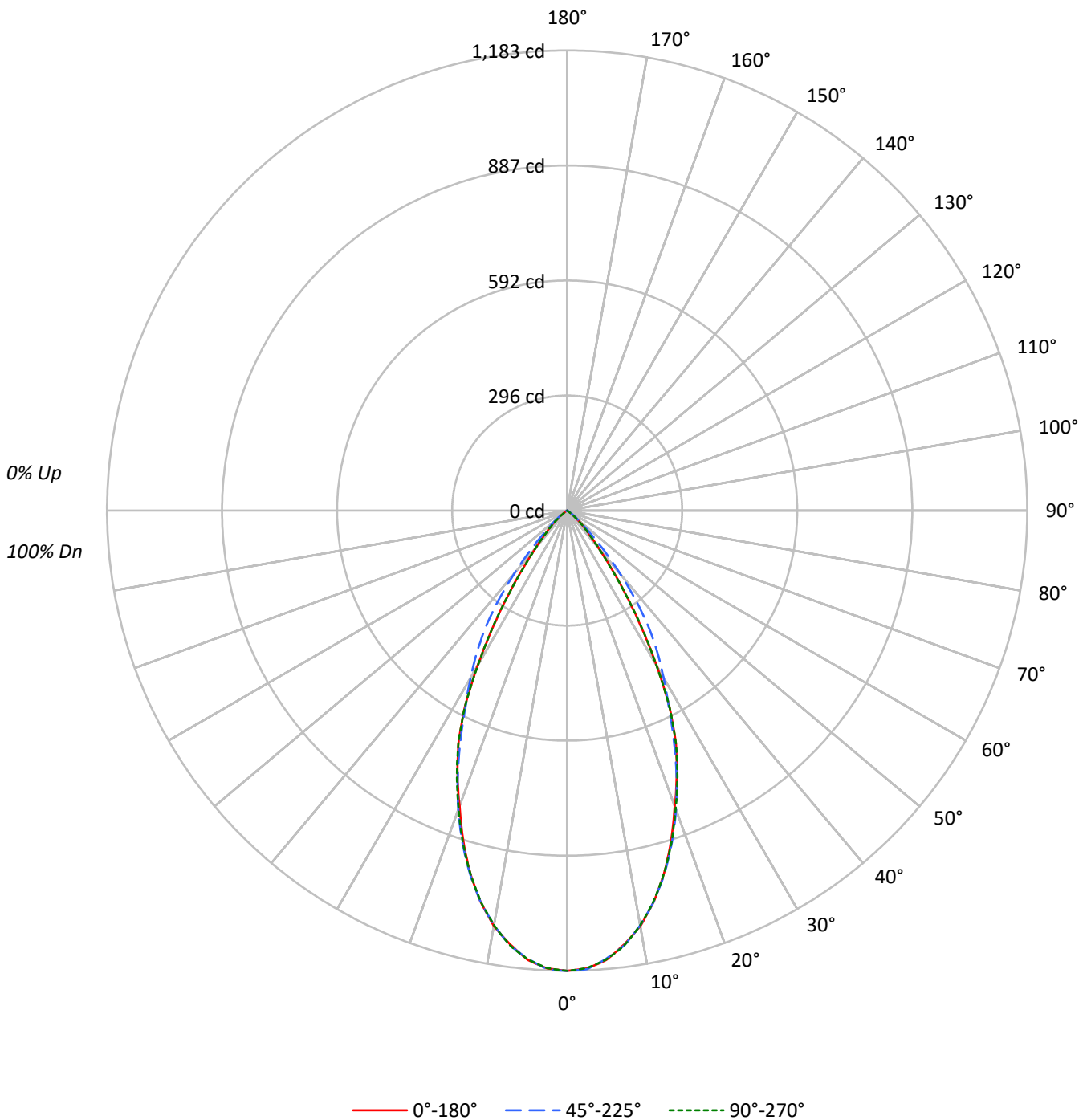
Lumens per Lamp: N/A  
Luminaire Lumens: 940.0 lumens  
Efficiency: N/A  
Efficacy: 94.0 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.82 / 0.85  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

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



TEST NUMBER: P241968  
CATALOG NUMBER: PRS410D010-S4M12-41SMDC

### Luminous Intensity Polar Plot





TEST NUMBER: P241968

CATALOG NUMBER: PRS410D010-S4M12-41SMDC

**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	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94				94
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87				87
3	103	96	92	88	101	95	91	87	92	89	86	90	87	84	88	85	83	81				81
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76				76
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71				71
6	88	79	73	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66				66
7	84	75	69	65	83	74	68	64	73	68	64	72	67	64	70	66	63	62				62
8	80	70	65	61	79	70	64	60	69	64	60	68	63	60	67	63	60	58				58
9	76	67	61	57	75	66	61	57	65	60	57	64	60	56	63	59	56	55				55
10	73	63	57	54	72	63	57	53	62	57	53	61	56	53	60	56	53	52				52

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

	0°	45°	90°
0°	90581	90581	90581
5°	89091	88861	89014
10°	84292	84136	84136
15°	76430	76589	76430
20°	65865	66680	66435
25°	55885	54702	55885
30°	40639	43821	40551
35°	24379	34088	24286
40°	12680	20973	12580
45°	6928	9959	6711
50°	3096	4168	2977
55°	267	1735	133
60°	153	459	153
65°	0	181	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P241968

CATALOG NUMBER: PRS410D010-S4M12-41SMDC

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	108.2	11.5
10°-20°	267.9	28.5
20°-30°	298.7	31.8
30°-40°	192.3	20.5
40°-50°	62.7	6.7
50°-60°	9.8	1.0
60°-70°	0.5	0.1
70°-80°	0.0	0.0
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°	674.8	71.8
0°-40°	867.0	92.2
0°-60°	939.5	99.9
0°-90°	940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	940.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1183	1183	1183	1183	1183	
5°	1160	1160	1156	1160	1158	108
15°	964	964	966	966	964	267
25°	662	661	648	661	662	296
35°	261	301	365	300	260	167
45°	64	73	92	71	62	52
55°	2	8	13	8	1	6
65°	0	0	1	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P241968

CATALOG NUMBER: PRS410D010-S4M12-41SMDC

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1183.4	1183.4	1183.4	1183.4	1183.4
2.5°	1178.4	1179.4	1180.4	1179.4	1177.4
5°	1159.5	1159.5	1156.5	1160.5	1158.5
7.5°	1124.5	1125.5	1127.5	1125.5	1127.5
10°	1084.5	1082.5	1082.5	1082.5	1082.5
12.5°	1029.5	1028.5	1029.5	1028.5	1028.5
15°	964.5	964.5	966.5	966.5	964.5
17.5°	888.6	890.6	895.6	894.6	892.6
20°	808.6	812.6	818.6	813.6	815.6
22.5°	736.7	732.7	734.7	732.7	740.6
25°	661.7	660.7	647.7	660.7	661.7
27.5°	569.7	583.7	564.7	584.7	569.7
30°	459.8	494.8	495.8	498.8	458.8
32.5°	352.8	393.8	430.8	395.8	356.8
35°	260.9	300.9	364.8	299.9	259.9
37.5°	181.9	217.9	288.9	216.9	179.9
40°	126.9	150.9	209.9	151.9	125.9
42.5°	89.0	105.0	142.9	102.0	88.0
45°	64.0	73.0	92.0	71.0	62.0
47.5°	44.0	51.0	57.0	50.0	43.0
50°	26.0	34.0	35.0	34.0	25.0
52.5°	12.0	19.0	22.0	19.0	12.0
55°	2.0	8.0	13.0	8.0	1.0
57.5°	1.0	1.0	7.0	1.0	1.0
60°	1.0	1.0	3.0	1.0	1.0
62.5°	1.0	1.0	1.0	1.0	1.0
65°	0.0	0.0	1.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	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)