

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: P241785

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P241785
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-47)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS420D010-S4M12-44SMDC-3000K
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM 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: 2094.6 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.1
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')
CIE Type: Direct

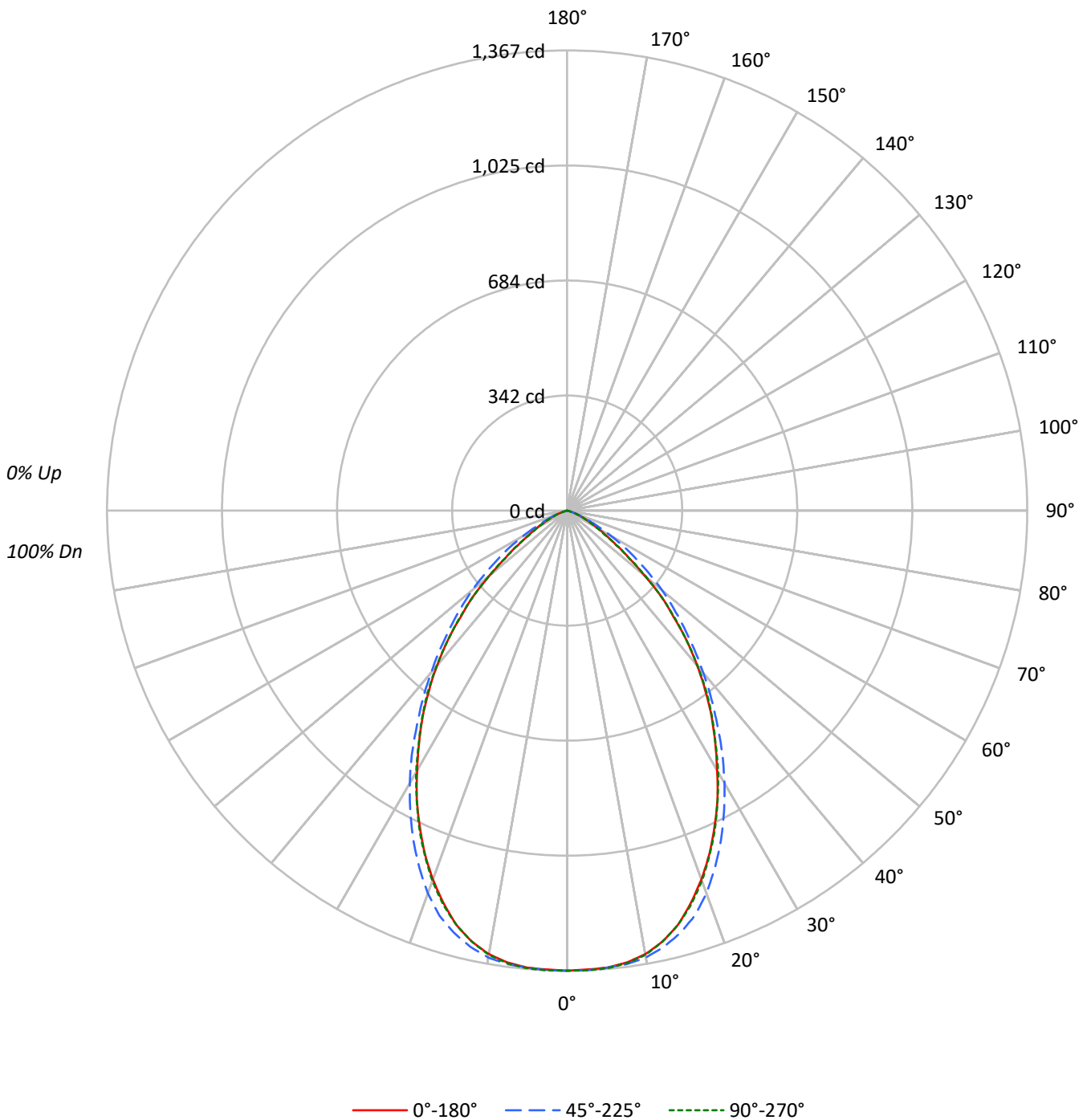
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	102	100	98	99	97	95	95	94	93	91					91			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81					81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72					72			
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65					65			
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53					53			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48					48			
8	70	59	51	46	69	58	51	46	57	51	46	56	50	46	55	49	46	44					44			
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40					40			
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37					37			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	104620	104620	104620
5°	104704	104704	104858
10°	103987	104788	104143
15°	100940	102906	100940
20°	94994	98537	95336
25°	87497	91339	87843
30°	78768	82604	79316
35°	69942	72651	70138
40°	60122	62810	60332
45°	48571	53053	49015
50°	35950	43833	36200
55°	23727	33389	23727
60°	15829	23101	15202
65°	10487	13475	10487
70°	6020	6938	6020
75°	0	2455	0
80°	0	0	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.5	6.2
10°-20°	360.2	17.2
20°-30°	486.6	23.2
30°-40°	479.4	22.9
40°-50°	366.2	17.5
50°-60°	194.3	9.3
60°-70°	69.7	3.3
70°-80°	8.8	0.4
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°	976.3	46.6
0°-40°	1455.7	69.5
0°-60°	2016.2	96.3
0°-90°	2094.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2094.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1367	1367	1367	1367	1367	
5°	1363	1363	1363	1365	1365	129
15°	1274	1288	1299	1286	1274	356
25°	1036	1063	1082	1067	1040	475
35°	748	771	778	773	751	466
45°	449	478	490	480	453	347
55°	178	209	250	209	178	166
65°	58	68	74	68	58	60
75°	0	2	8	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°	1366.8	1366.8	1366.8	1366.8	1366.8
2.5°	1364.7	1364.7	1366.8	1366.8	1366.8
5°	1362.7	1362.7	1362.7	1364.7	1364.7
7.5°	1354.4	1354.4	1358.5	1356.5	1356.5
10°	1337.9	1342.0	1348.2	1342.0	1339.9
12.5°	1311.0	1321.3	1327.5	1321.3	1311.0
15°	1273.8	1288.2	1298.6	1286.2	1273.8
17.5°	1222.1	1240.7	1261.4	1240.7	1226.2
20°	1166.2	1189.0	1209.7	1191.1	1170.4
22.5°	1104.2	1129.0	1147.6	1131.1	1106.3
25°	1036.0	1062.8	1081.5	1067.0	1040.1
27.5°	967.7	994.6	1009.1	996.7	967.7
30°	891.2	920.2	934.6	924.3	897.4
32.5°	818.8	845.7	858.1	847.8	820.9
35°	748.5	771.3	777.5	773.4	750.6
37.5°	674.1	698.9	703.1	703.1	680.3
40°	601.7	624.5	628.6	626.5	603.8
42.5°	527.3	552.1	558.3	552.1	527.3
45°	448.7	477.7	490.1	479.7	452.8
47.5°	382.5	405.3	428.0	407.4	380.5
50°	301.9	341.2	368.1	339.1	304.0
52.5°	231.6	272.9	306.0	270.9	231.6
55°	177.8	208.8	250.2	208.8	177.8
57.5°	134.4	159.2	200.6	157.2	130.3
60°	103.4	122.0	150.9	117.9	99.3
62.5°	78.6	91.0	107.5	88.9	76.5
65°	57.9	68.2	74.4	68.2	57.9
67.5°	41.4	49.6	49.6	49.6	41.4
70°	26.9	33.1	31.0	33.1	26.9
72.5°	10.3	16.5	16.5	16.5	10.3
75°	0.0	2.1	8.3	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)