

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: FAIL-SAFE

Report Number: P861188

Luminaire Tested: **4APVTLD-SL3C3 HI POWER 5000K 277V**

Issue Date: 1/31/2023

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P861188
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2210-820-20)
Test Lab: INNOVATION CENTER
Issue Date: 1/31/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4APVTLTD-SL3C3 HI POWER 5000K 277V
Description: HI POWER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

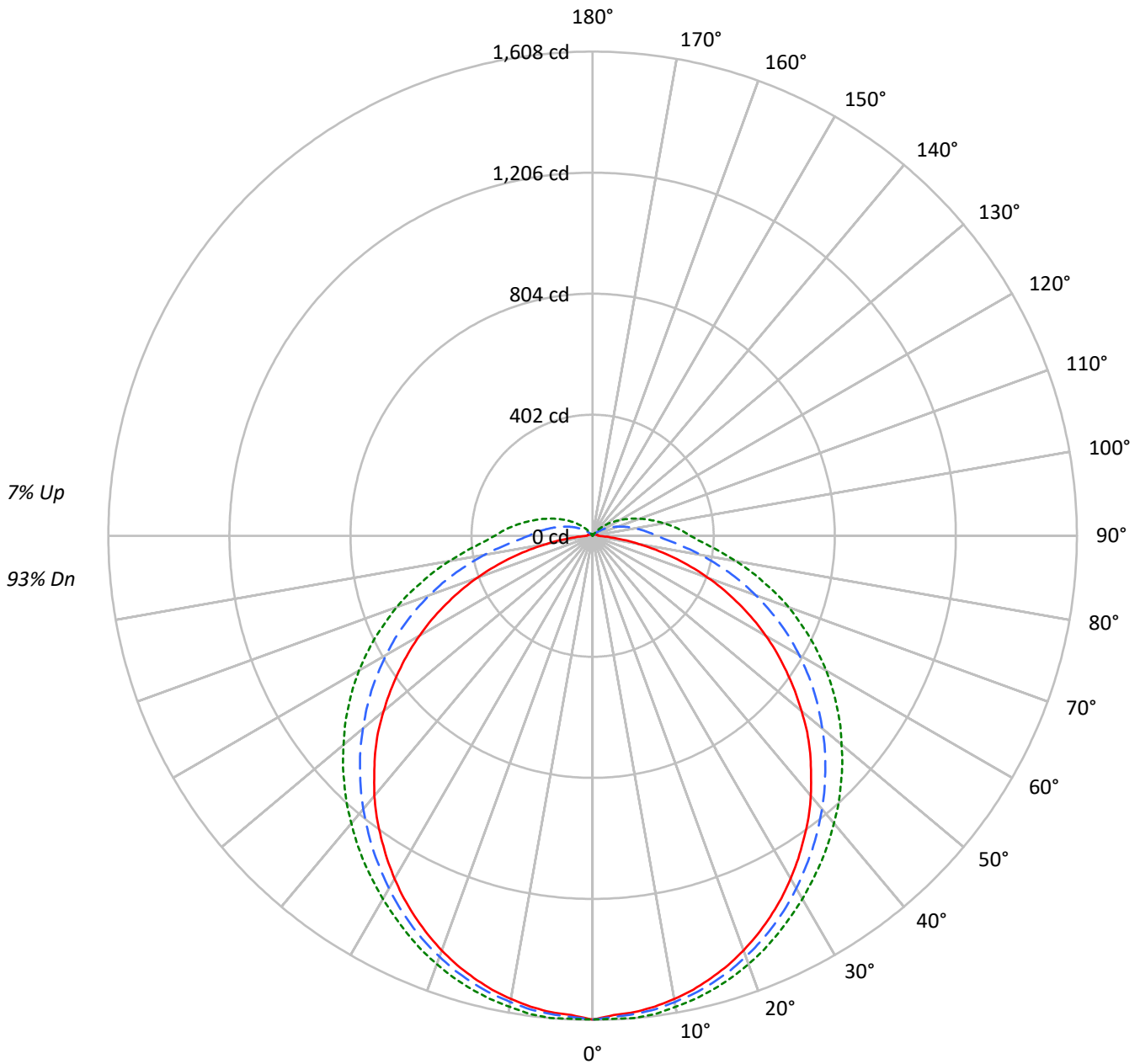
Lumens per Lamp: N/A
Luminaire Lumens: 5530.7 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Direct

Input Watts (W): 46.2
Input Voltage (V): 277
Input Current (A_{in}): 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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	93								
1	105	100	95	90	102	97	92	88	91	87	84	86	83	80	81	79	76	74								
2	95	86	79	72	92	83	77	71	79	73	68	74	69	65	70	66	63	60								
3	86	75	66	59	83	73	65	58	69	62	56	65	59	54	61	57	53	50								
4	79	66	57	50	76	64	56	49	61	53	48	58	51	46	55	49	45	42								
5	72	59	50	43	70	57	49	42	54	47	41	52	45	40	49	43	39	36								
6	67	53	44	37	64	52	43	37	49	41	36	47	40	35	44	38	34	32								
7	62	48	39	33	60	47	38	32	44	37	31	42	36	31	40	34	30	28								
8	57	44	35	29	55	43	34	29	41	33	28	39	32	27	37	31	27	25								
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24	22								
10	50	37	29	23	49	36	28	23	34	28	23	33	27	22	32	26	22	20								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12970	12970	12970
5°	12849	12709	12749
10°	12759	12468	12471
15°	12640	12227	12205
20°	12495	11947	11920
25°	12313	11661	11626
30°	12113	11352	11346
35°	11892	11051	11098
40°	11678	10759	10858
45°	11425	10465	10648
50°	11098	10178	10442
55°	10738	9909	10272
60°	10341	9599	10091
65°	9810	9286	9882
70°	9096	8907	9695
75°	8025	8513	9422
80°	6415	8114	9270
85°	4451	7938	9348



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.9	2.7
10°-20°	434.9	7.9
20°-30°	658.3	11.9
30°-40°	797.8	14.4
40°-50°	845.0	15.3
50°-60°	799.1	14.4
60°-70°	670.1	12.1
70°-80°	478.9	8.7
80°-90°	282.5	5.1
90°-100°	179.1	3.2
100°-110°	116.0	2.1
110°-120°	67.2	1.2
120°-130°	33.1	0.6
130°-140°	11.9	0.2
140°-150°	3.3	0.1
150°-160°	1.6	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	1245.1	22.5
0°-40°	2042.9	36.9
0°-60°	3687.0	66.7
0°-90°	5118.4	92.5
90°-120°	362.3	6.6
90°-150°	410.6	7.4
90°-180°	412.0	7.4
0°-180°	5530.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1607	1607	1607	1607	1607	
5°	1588	1608	1594	1596	1608	151
15°	1521	1541	1538	1546	1558	429
25°	1396	1419	1426	1441	1457	643
35°	1224	1251	1272	1302	1323	766
45°	1022	1051	1092	1142	1166	787
55°	786	830	897	960	990	703
65°	536	594	686	762	795	531
75°	277	357	468	555	584	294
85°	60	154	273	358	389	69
90°	20	102	213	296	325	12
95°	17	75	176	254	282	14
105°	14	38	114	176	201	15
115°	10	15	67	114	133	10
125°	7	8	30	64	79	6
135°	4	5	7	25	35	3
145°	4	3	4	6	6	2
155°	3	3	3	4	4	1
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1606.6	1606.6	1606.6	1606.6	1606.6
2.5°	1593.5	1612.6	1599.5	1600.5	1605.6
5°	1588.4	1607.6	1594.5	1595.5	1607.6
7.5°	1577.3	1596.5	1586.4	1587.4	1601.5
10°	1562.2	1582.4	1572.3	1576.3	1588.4
12.5°	1544.0	1564.2	1557.2	1561.2	1575.3
15°	1520.8	1541.0	1538.0	1546.1	1558.2
17.5°	1495.6	1516.8	1514.8	1525.9	1538.0
20°	1465.4	1485.5	1487.6	1499.7	1513.8
22.5°	1432.1	1454.3	1458.3	1470.4	1487.6
25°	1395.8	1419.0	1426.0	1441.2	1457.3
27.5°	1357.5	1379.7	1390.7	1409.9	1425.0
30°	1315.1	1339.3	1352.4	1375.6	1392.8
32.5°	1270.7	1295.9	1312.1	1340.3	1357.5
35°	1224.3	1250.6	1271.7	1302.0	1323.2
37.5°	1177.9	1202.2	1228.4	1262.7	1285.9
40°	1127.5	1154.8	1185.0	1224.3	1246.5
42.5°	1073.1	1104.3	1139.6	1183.0	1208.2
45°	1021.6	1050.9	1092.2	1141.6	1165.8
47.5°	966.2	998.4	1045.8	1096.3	1124.5
50°	905.6	943.0	995.4	1052.9	1079.1
52.5°	846.1	886.5	946.0	1007.5	1036.8
55°	785.6	830.0	896.6	960.1	990.4
57.5°	726.1	770.5	844.1	912.7	944.0
60°	663.6	711.0	791.7	863.3	895.6
62.5°	602.1	652.5	740.3	813.9	845.1
65°	536.5	594.0	685.8	762.4	794.7
67.5°	473.0	534.5	630.3	711.0	741.3
70°	407.4	474.0	575.9	659.6	692.9
72.5°	341.9	414.5	522.4	607.1	639.4
75°	277.3	357.0	468.0	554.7	583.9
77.5°	213.8	300.5	414.5	501.2	534.5
80°	154.3	247.1	364.1	450.8	482.1
82.5°	102.9	196.7	315.7	401.4	433.7
85°	59.5	154.3	273.3	358.0	389.3
87.5°	30.3	122.0	237.0	321.7	352.0
90°	20.2	101.9	212.8	295.5	324.7
92.5°	18.2	87.7	193.6	274.3	303.6
95°	17.1	74.6	175.5	254.1	282.4
97.5°	16.1	63.5	159.3	233.0	261.2
100°	15.1	54.5	143.2	213.8	239.0
102.5°	15.1	45.4	128.1	194.6	219.9
105°	14.1	38.3	114.0	175.5	200.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	11.1	19.2	76.6	129.1	149.3
115°	10.1	15.1	66.6	114.0	133.1
117.5°	10.1	11.1	56.5	100.9	118.0
120°	9.1	10.1	47.4	87.7	103.9
122.5°	8.1	9.1	38.3	75.6	90.8
125°	7.1	8.1	30.3	64.5	78.7
127.5°	5.0	7.1	23.2	53.5	66.6
130°	5.0	6.1	16.1	43.4	55.5
132.5°	5.0	6.1	11.1	34.3	45.4
135°	4.0	5.0	7.1	25.2	35.3
137.5°	4.0	5.0	6.1	18.2	26.2
140°	4.0	4.0	6.1	11.1	18.2
142.5°	4.0	4.0	5.0	7.1	11.1
145°	4.0	3.0	4.0	6.1	6.1
147.5°	3.0	3.0	4.0	5.0	6.1
150°	3.0	3.0	4.0	5.0	5.0
152.5°	3.0	3.0	3.0	4.0	5.0
155°	3.0	3.0	3.0	4.0	4.0
157.5°	3.0	3.0	3.0	3.0	4.0
160°	3.0	3.0	3.0	3.0	3.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	13.1	31.3	100.9	159.3	182.5
110°	12.1	25.2	88.7	143.2	165.4



(END OF REPORT)