

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: 168P170

Luminaire Tested: **MPWC-2/154-WHT-NRL**

Issue Date: 3/3/2020

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: 168P170
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MPWC-2/154-WHT-NRL
Description: Medical Patient Wall Bracket, Traditional Style.
Rectangular Shaped with upper and lower compartments.
Light Source: Three - F54T5HO/830 - 4400 Lumens ea. - 54 Watts ea.
Ballast/Driver: Two - Advance ICN-2S54

Luminaire Equipment:	<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
	AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
	AS-5443-2	Good	REFLECTOR
	AS-5443-3	Good	DRIVER
	AS-5443-4	Good	UPPER MODULE
	AS-5443-5	Good	LENS
	AS-5443-6	Good	DRIVER 2
	AS-5443-7	Good	TRIM RING

Summary

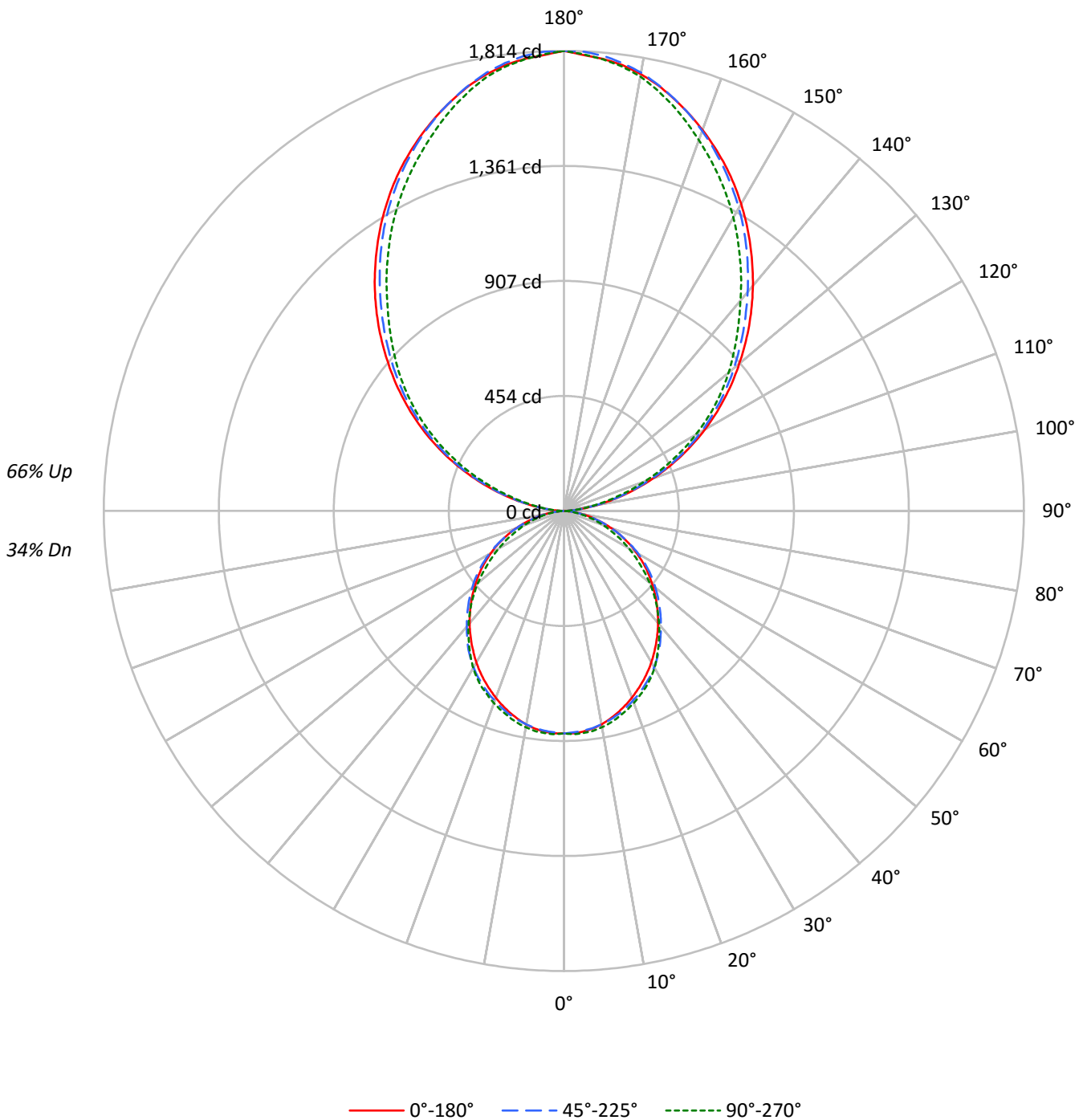
Lumens per Lamp: 4400 (3 lamps)
Luminaire Lumens: 6595.6 lumens
Efficiency: 50.0%
Efficacy: 40.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.21 / 1.32
Luminous Opening: Rectangular (W 0.29' x L: 3.83' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 165
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: 168P170
CATALOG NUMBER: MPWC-2/154-WHT-NRL

Luminous Intensity Polar Plot





TEST NUMBER: 168P170

CATALOG NUMBER: MPWC-2/154-WHT-NRL

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	52	52	52	52	47	47	47	47	37	37	37	29	29	29	21	21	21	17				
1	47	45	43	41	42	41	39	38	33	32	31	25	25	24	18	18	18	14				
2	43	39	36	34	39	36	33	31	29	27	25	22	21	20	16	15	15	12				
3	39	35	31	28	35	31	28	26	25	23	21	20	18	17	14	13	13	10				
4	36	31	27	24	32	28	24	22	22	20	18	17	16	14	13	12	11	9				
5	33	27	23	20	29	25	21	19	20	17	16	16	14	12	12	10	9	8				
6	30	24	20	18	27	22	19	16	18	15	14	14	12	11	10	9	8	7				
7	28	22	18	15	25	20	17	14	16	14	12	13	11	10	10	8	7	6				
8	26	20	16	13	23	18	15	12	15	12	10	12	10	9	9	8	7	5				
9	24	18	14	12	22	16	13	11	14	11	9	11	9	8	8	7	6	5				
10	22	16	13	11	20	15	12	10	12	10	8	10	8	7	7	6	5	4				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8499	8499	8499
5°	8493	8463	8551
10°	8414	8404	8522
15°	8257	8327	8428
20°	8085	8209	8312
25°	7902	8095	8191
30°	7721	7968	8001
35°	7512	7785	7690
40°	7312	7527	7388
45°	7099	7319	7058
50°	6890	7116	6664
55°	6691	6894	6201
60°	6435	6590	5757
65°	6123	6168	5251
70°	5695	5639	4704
75°	5092	4980	4156
80°	4297	4074	3460
85°	3225	3113	2669



TEST NUMBER: 168P170

CATALOG NUMBER: MPWC-2/154-WHT-NRL

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	82.7	1.3	0.6	0°	877	877	877	877	877	
10°-20°	233.8	3.5	1.8	5°	873	870	870	872	879	83
20°-30°	347.2	5.3	2.6	15°	823	824	830	832	840	232
30°-40°	405.3	6.1	3.1	25°	739	745	757	761	766	340
40°-50°	404.3	6.1	3.1	35°	635	643	658	649	650	397
50°-60°	350.9	5.3	2.7	45°	518	526	534	520	515	400
60°-70°	255.1	3.9	1.9	55°	396	402	408	379	367	353
70°-80°	136.9	2.1	1.0	65°	267	272	269	241	229	264
80°-90°	34.1	0.5	0.3	75°	136	141	133	117	111	145
90°-100°	55.2	0.8	0.4	85°	29	32	28	26	24	34
100°-110°	252.0	3.8	1.9	90°	0	2	2	2	2	3
110°-120°	487.4	7.4	3.7	95°	44	48	44	41	40	54
120°-130°	670.8	10.2	5.1	105°	246	247	240	227	216	262
130°-140°	770.9	11.7	5.8	115°	508	505	497	481	469	502
140°-150°	782.2	11.9	5.9	125°	774	769	752	731	728	692
150°-160°	684.1	10.4	5.2	135°	1033	1030	1000	966	963	797
160°-170°	472.6	7.2	3.6	145°	1282	1280	1257	1219	1211	802
170°-180°	170.2	2.6	1.3	155°	1505	1509	1493	1465	1451	693
0°-30°	663.7	10.1	5.0	165°	1682	1689	1683	1674	1656	474
0°-40°	1069.0	16.2	8.1	175°	1789	1800	1801	1806	1787	170
0°-60°	1824.2	27.7	13.8	180°	1814	1814	1814	1814	1814	
0°-90°	2250.2	34.1	17.0							
90°-120°	794.6	12.0	6.0							
90°-150°	3018.4	45.8	22.9							
90°-180°	4345.0	65.9	32.9							
0°-180°	6595.6	100.0	50.0							



TEST NUMBER: 168P170

CATALOG NUMBER: MPWC-2/154-WHT-NRL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	877	877	877	877	877
2.5°	878	874	874	875	881
5°	873	870	870	872	879
7.5°	866	863	864	866	875
10°	855	853	854	857	866
12.5°	840	840	843	847	855
15°	823	824	830	832	840
17.5°	804	806	814	817	824
20°	784	787	796	800	806
22.5°	762	767	778	781	786
25°	739	745	757	761	766
27.5°	715	723	736	738	742
30°	690	698	712	712	715
32.5°	662	672	686	682	683
35°	635	643	658	649	650
37.5°	607	614	626	617	618
40°	578	584	595	586	584
42.5°	548	555	565	553	550
45°	518	526	534	520	515
47.5°	488	496	503	487	479
50°	457	465	472	451	442
52.5°	426	433	441	415	404
55°	396	402	408	379	367
57.5°	364	370	374	343	331
60°	332	338	340	309	297
62.5°	300	305	305	274	263
65°	267	272	269	241	229
67.5°	234	239	234	208	196
70°	201	206	199	177	166
72.5°	168	173	166	146	137
75°	136	141	133	117	111
77.5°	106	109	102	91	86
80°	77	80	73	66	62
82.5°	51	54	49	44	42
85°	29	32	28	26	24
87.5°	12	13	12	11	11
90°	0	2	2	2	2
92.5°	13	15	14	13	13
95°	44	48	44	41	40
97.5°	84	87	82	77	75
100°	132	134	129	119	115
102.5°	187	188	182	170	162
105°	246	247	240	227	216
107.5°	309	309	301	288	275
110°	374	373	365	351	338



TEST NUMBER: 168P170

CATALOG NUMBER: MPWC-2/154-WHT-NRL

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	440	439	431	416	404
115°	508	505	497	481	469
117.5°	575	571	562	546	536
120°	642	637	626	610	600
122.5°	708	703	689	671	665
125°	774	769	752	731	728
127.5°	839	835	814	790	788
130°	903	900	876	848	848
132.5°	968	965	937	907	905
135°	1033	1030	1000	966	963
137.5°	1097	1094	1063	1027	1022
140°	1160	1156	1128	1090	1083
142.5°	1221	1217	1192	1155	1149
145°	1282	1280	1257	1219	1211
147.5°	1341	1342	1320	1283	1275
150°	1398	1401	1380	1347	1337
152.5°	1453	1457	1437	1408	1395
155°	1505	1509	1493	1465	1451
157.5°	1553	1558	1545	1521	1504
160°	1599	1605	1595	1575	1556
162.5°	1642	1648	1641	1627	1608
165°	1682	1689	1683	1674	1656
167.5°	1719	1726	1721	1717	1700
170°	1749	1758	1755	1755	1739
172.5°	1773	1783	1781	1785	1767
175°	1789	1800	1801	1806	1787
177.5°	1799	1809	1812	1819	1802
180°	1814	1814	1814	1814	1814

(END OF REPORT)