

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: 766609

Luminaire Tested: **HPJCPP150xxxx**

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: 766609  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: HPJCPP150xxxx  
Description: FAIL-SAFE GARAGE LIGHT  
Light Source: #003 - 150W HPS CL BU MED  
Ballast/Driver: -

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

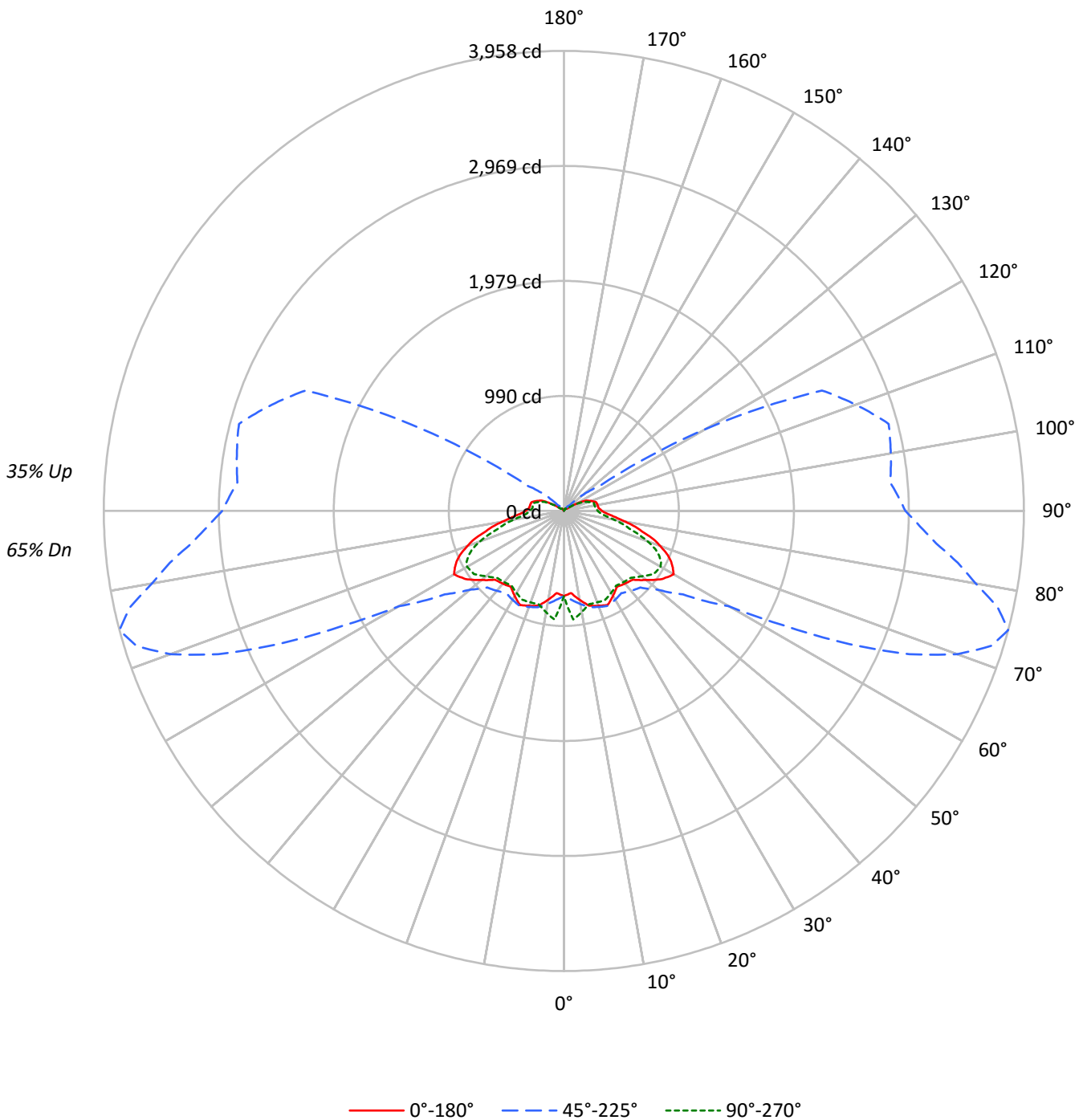
**Summary**

Lumens per Lamp: 16000 (1 lamp)  
Luminaire Lumens: 12329.9 lumens  
Efficiency: 77.1%  
Efficacy: 82.2 lumens/watt  
Spacing Criteria (0/90/45): 1.68 / 1.65 / 3.16  
Luminous Opening: Point Source (0' x 0' x 0')  
CIE Type: Semi-Direct

Input Watts (W): 150  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): 7.0  
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	0
RCR																		
0	85	85	85	85	80	80	80	80	71	71	71	62	62	62	54	54	54	50
1	72	66	61	56	67	62	57	53	54	50	46	46	43	40	39	36	34	31
2	64	55	48	42	59	51	44	39	44	38	34	37	33	29	31	27	25	21
3	57	46	38	32	52	43	36	30	37	31	26	31	26	22	26	22	19	15
4	51	40	32	26	47	37	30	24	32	26	21	27	22	18	22	18	15	12
5	47	35	27	21	43	33	25	20	28	22	17	23	18	15	19	15	12	9
6	43	31	23	18	39	29	22	17	25	19	14	21	16	12	17	13	10	8
7	39	28	21	15	36	26	19	14	22	17	12	19	14	11	16	12	9	7
8	36	25	18	13	34	24	17	12	20	15	11	17	13	9	14	10	8	6
9	34	23	16	12	31	21	15	11	19	13	10	16	11	8	13	9	7	5
10	32	21	15	10	29	20	14	10	17	12	8	15	10	7	12	9	6	4

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

	0°	90°	180°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	75.4	0.6	0.5	0°	732	732	732	732	732	
10°-20°	237.3	1.9	1.5	5°	708	768	937	768	708	70
20°-30°	394.6	3.2	2.5	15°	843	856	831	856	843	233
30°-40°	527.7	4.3	3.3	25°	893	901	843	901	893	396
40°-50°	685.8	5.6	4.3	35°	796	863	784	863	796	522
50°-60°	975.3	7.9	6.1	45°	836	931	813	931	836	674
60°-70°	1566.5	12.7	9.8	55°	1024	1250	945	1250	1024	912
70°-80°	1871.2	15.2	11.7	65°	1016	2713	904	2713	1016	996
80°-90°	1707.5	13.8	10.7	75°	706	3958	582	3958	706	755
90°-100°	1598.5	13.0	10.0	85°	401	3216	330	3216	401	357
100°-110°	1423.8	11.5	8.9	90°	328	2938	292	2938	328	182
110°-120°	904.5	7.3	5.7	95°	299	2819	272	2819	299	248
120°-130°	300.4	2.4	1.9	105°	289	2894	266	2894	289	288
130°-140°	44.2	0.4	0.3	115°	211	2451	185	2451	211	185
140°-150°	12.3	0.1	0.1	125°	36	373	35	373	36	70
150°-160°	2.7	0.0	0.0	135°	27	66	27	66	27	22
160°-170°	0.1	0.0	0.0	145°	26	27	26	27	26	13
170°-180°	0.0	0.0	0.0	155°	5	0	5	0	5	4
0°-30°	707.3	5.7	4.4	165°	0	0	0	0	0	0
0°-40°	1235.0	10.0	7.7	175°	0	0	0	0	0	0
0°-60°	2896.1	23.5	18.1	180°	0	0	0	0	0	0
0°-90°	8041.4	65.2	50.3							
90°-120°	3926.8	31.8	24.5							
90°-150°	4283.7	34.7	26.8							
90°-180°	4287.0	34.8	26.8							
0°-180°	12329.9	100.0	77.1							



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	732	732	732	732	732	732	732	732	732	732	732
5°	708	700	708	716	735	768	807	857	888	886	937
15°	843	842	833	845	849	856	852	842	832	828	831
25°	893	884	885	894	890	901	882	866	852	839	843
35°	796	796	802	822	832	863	817	807	797	779	784
45°	836	835	839	859	912	931	891	830	812	802	813
50°	924	917	917	937	1006	1053	969	892	859	871	874
55°	1024	1018	1037	1052	1110	1250	1095	1006	965	959	945
60°	1091	1141	1221	1357	1546	1638	1412	1281	1042	1027	960
62.5°	1057	1171	1234	1503	1876	2135	1683	1384	1022	1050	943
65°	1016	1168	1203	1650	2156	2713	1976	1559	985	1054	904
67.5°	959	1141	1152	1753	2430	3220	2181	1683	929	1046	849
70°	883	1087	1082	1806	2668	3602	2341	1737	873	1008	770
72.5°	811	1006	994	1793	2852	3857	2453	1756	817	946	675
75°	706	915	907	1746	2937	3958	2493	1724	740	864	582
77.5°	630	823	825	1686	2940	3822	2531	1670	665	784	517
80°	541	749	757	1625	2934	3599	2525	1610	600	716	441
82.5°	463	679	711	1575	2936	3418	2521	1550	552	651	378
85°	401	603	681	1515	2951	3216	2552	1496	521	589	330
87.5°	356	539	670	1465	2982	3067	2557	1439	517	535	308
90°	328	490	677	1418	3020	2938	2545	1385	530	493	292
95°	299	418	737	1345	3064	2819	2536	1292	599	376	272
105°	289	317	938	1213	2886	2894	2633	1070	793	289	266
115°	211	229	706	753	1845	2451	1796	629	670	213	185
125°	36	41	55	96	237	373	238	96	52	37	35
135°	27	27	27	31	44	66	45	31	27	28	27
145°	26	24	20	18	16	27	15	17	20	24	26
155°	5	4	2	2	0	0	0	0	2	4	5
165°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	732	732	732	732	732	732	732	732	732	732
5°	886	888	857	807	768	735	716	708	700	708
15°	828	832	842	852	856	849	845	833	842	843
25°	839	852	866	882	901	890	894	885	884	893
35°	779	797	807	817	863	832	822	802	796	796
45°	802	812	830	891	931	912	859	839	835	836
50°	871	859	892	969	1053	1006	937	917	917	924
55°	959	965	1006	1095	1250	1110	1052	1037	1018	1024
60°	1027	1042	1281	1412	1638	1546	1357	1221	1141	1091
62.5°	1050	1022	1384	1683	2135	1876	1503	1234	1171	1057
65°	1054	985	1559	1976	2713	2156	1650	1203	1168	1016
67.5°	1046	929	1683	2181	3220	2430	1753	1152	1141	959
70°	1008	873	1737	2341	3602	2668	1806	1082	1087	883
72.5°	946	817	1756	2453	3857	2852	1793	994	1006	811
75°	864	740	1724	2493	3958	2937	1746	907	915	706
77.5°	784	665	1670	2531	3822	2940	1686	825	823	630
80°	716	600	1610	2525	3599	2934	1625	757	749	541
82.5°	651	552	1550	2521	3418	2936	1575	711	679	463
85°	589	521	1496	2552	3216	2951	1515	681	603	401
87.5°	535	517	1439	2557	3067	2982	1465	670	539	356
90°	493	530	1385	2545	2938	3020	1418	677	490	328
95°	376	599	1292	2536	2819	3064	1345	737	418	299
105°	289	793	1070	2633	2894	2886	1213	938	317	289
115°	213	670	629	1796	2451	1845	753	706	229	211
125°	37	52	96	238	373	237	96	55	41	36
135°	28	27	31	45	66	44	31	27	27	27
145°	24	20	17	15	27	16	18	20	24	26
155°	4	2	0	0	0	0	2	2	4	5
165°	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)