

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: BALLABS TEST NO. 11319.0

Luminaire Tested: **HMS24-150ICE-TX-DOT-240V-A4132**

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: BALLABS TEST NO. 11319.0  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: HMS24-150ICE-TX-DOT-240V-A4132  
Description: 1/150W ICETRON INDUCTION LAMP 28"SQ SURFACE MNT LUMINAIRE  
Light Source: -  
ICETRON 150/QT150  
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

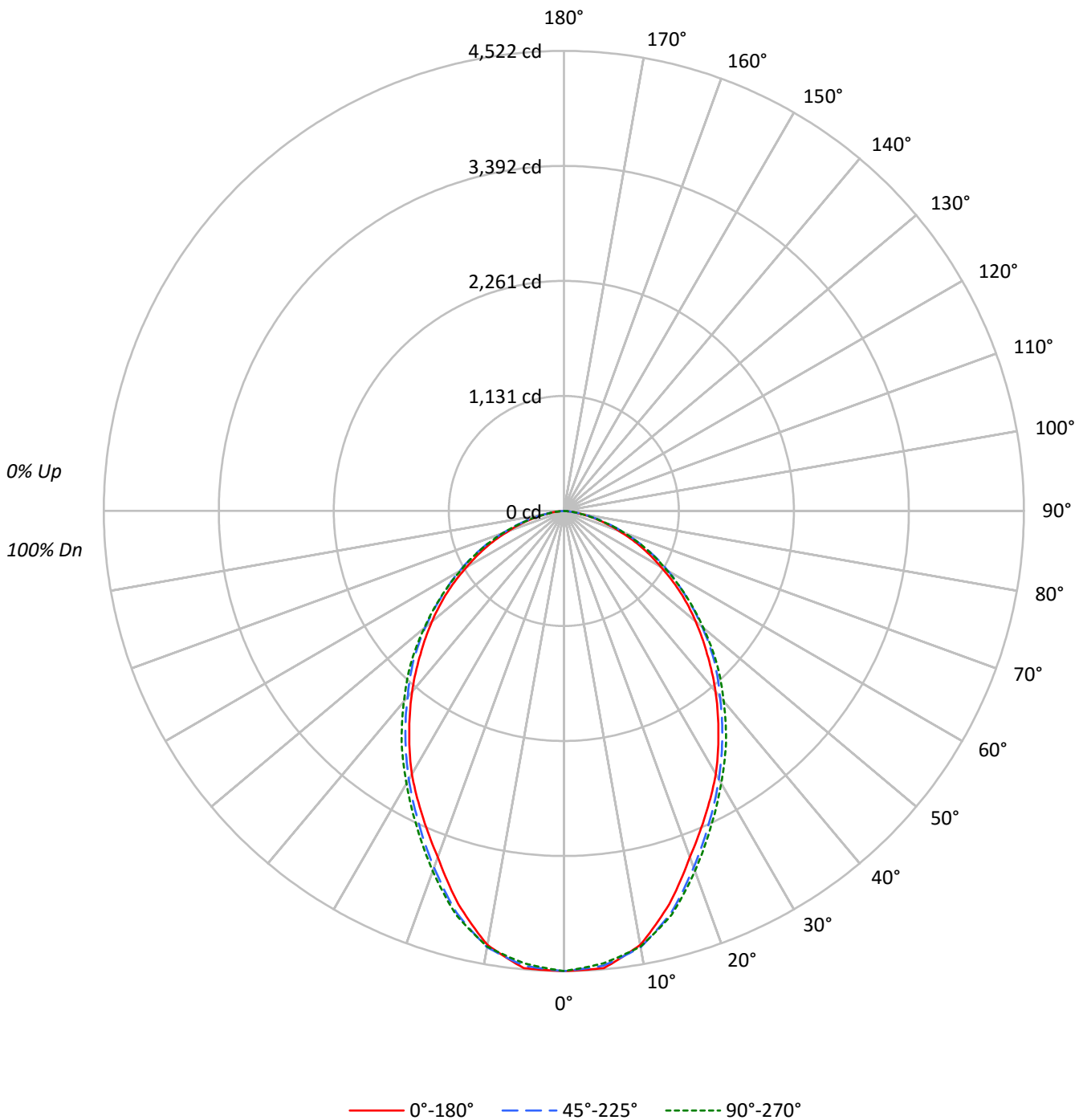
**Summary**

Lumens per Lamp: 12000 (1 lamp)  
Luminaire Lumens: 9090.1 lumens  
Efficiency: 75.8%  
Efficacy: 57.9 lumens/watt  
Spacing Criteria (0/90/45): 1.01 / 1.05 / 1.16  
Luminous Opening: Rectangular (W 1.92' x L: 1.92' x H: 0')  
CIE Type: Direct

Input Watts (W): 157  
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: BALLABS TEST NO. 11319.0  
CATALOG NUMBER: HMS24-150ICE-TX-DOT-240V-A4132

### Luminous Intensity Polar Plot





TEST NUMBER: BALLABS TEST NO. 11319.0  
 CATALOG NUMBER: HMS24-150ICE-TX-DOT-240V-A4132

**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	90	90	90	90	88	88	88	88	84	84	84	81	81	81	77	77	77	76
1	83	80	77	75	81	78	76	73	75	73	71	72	71	69	70	68	67	65
2	76	71	66	62	75	69	65	61	67	63	60	64	61	59	62	60	57	56
3	70	63	57	53	68	62	57	52	60	55	51	58	54	50	56	52	50	48
4	65	56	50	45	63	55	50	45	54	49	45	52	47	44	50	46	43	42
5	60	51	44	40	58	50	44	40	48	43	39	47	42	39	46	42	38	37
6	56	46	40	35	54	45	39	35	44	39	35	43	38	34	42	37	34	33
7	52	42	36	31	50	41	36	31	40	35	31	39	34	31	38	34	31	29
8	48	39	33	28	47	38	32	28	37	32	28	36	31	28	35	31	28	26
9	45	36	30	26	44	35	30	26	34	29	26	34	29	25	33	28	25	24
10	43	33	27	24	42	33	27	23	32	27	23	31	27	23	31	26	23	22

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

	0°	45°	90°
0°	13245	13245	13245
5°	13260	13190	13125
10°	12881	12947	12929
15°	12136	12387	12451
20°	11287	11623	11739
25°	10646	10920	11056
30°	10106	10302	10458
35°	9468	9708	9937
40°	8875	9131	9349
45°	8251	8670	8819
50°	7715	8097	8157
55°	7154	7486	7532
60°	6461	6959	6860
65°	5822	6314	6265
70°	4967	5472	5438
75°	4131	4572	4357
80°	2952	3205	2986
85°	1680	1613	1479



TEST NUMBER: BALLABS TEST NO. 11319.0  
 CATALOG NUMBER: HMS24-150ICE-TX-DOT-240V-A4132

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	423.4	4.7	3.5	0°	4522	4522	4522	4522	4522	
10°-20°	1139.9	12.5	9.5	5°	4510	4491	4486	4472	4464	424
20°-30°	1553.6	17.1	12.9	15°	4002	4036	4085	4099	4106	1123
30°-40°	1700.7	18.7	14.2	25°	3294	3341	3379	3400	3421	1520
40°-50°	1597.1	17.6	13.3	35°	2648	2685	2715	2771	2779	1659
50°-60°	1300.9	14.3	10.8	45°	1992	2015	2093	2107	2129	1543
60°-70°	880.9	9.7	7.3	55°	1401	1430	1466	1480	1475	1252
70°-80°	418.0	4.6	3.5	65°	840	874	911	897	904	832
80°-90°	75.6	0.8	0.6	75°	365	383	404	393	385	391
90°-100°	0.0	0.0	0.0	85°	50	48	48	46	44	75
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	3116.9	34.3	26.0							
0°-40°	4817.6	53.0	40.1							
0°-60°	7715.6	84.9	64.3							
0°-90°	9090.1	100.0	75.8							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	9090.1	100.0	75.8							



TEST NUMBER: BALLABS TEST NO. 11319.0  
CATALOG NUMBER: HMS24-150ICE-TX-DOT-240V-A4132

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4522	4522	4522	4522	4522
5°	4510	4491	4486	4472	4464
10°	4331	4321	4353	4354	4347
15°	4002	4036	4085	4099	4106
20°	3621	3681	3729	3732	3766
25°	3294	3341	3379	3400	3421
30°	2988	3006	3046	3073	3092
35°	2648	2685	2715	2771	2779
40°	2321	2336	2388	2439	2445
45°	1992	2015	2093	2107	2129
50°	1693	1706	1777	1785	1790
55°	1401	1430	1466	1480	1475
60°	1103	1131	1188	1180	1171
65°	840	874	911	897	904
70°	580	618	639	635	635
75°	365	383	404	393	385
80°	175	183	190	184	177
85°	50	48	48	46	44
90°	0	0	0	0	0

(END OF REPORT)