

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: P32549

Luminaire Tested: **ORM-G-24-624T5-UNV-KSH25-EB53**

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: P32549
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORM-G-24-624T5-UNV-KSH25-EB53
Description: FAILSAFE HEALTHCARE 2x2 RECESSED GRID MOUNT LINEAR
FLUORESCENT FIXTURE WITH A WHITE PAINTED INTERIOR & A DOOR
WITH A PATTERN KSH25 ACRYLIC LENS
Light Source: (6) BIPIN T5 DOUBLE ENDED LINEAR FLUORESCENT LAMPS 4100K
GE F24W/T5/841
Ballast/Driver: (3) ULT ELECTRONIC BALLAST
B224PUNV-C

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

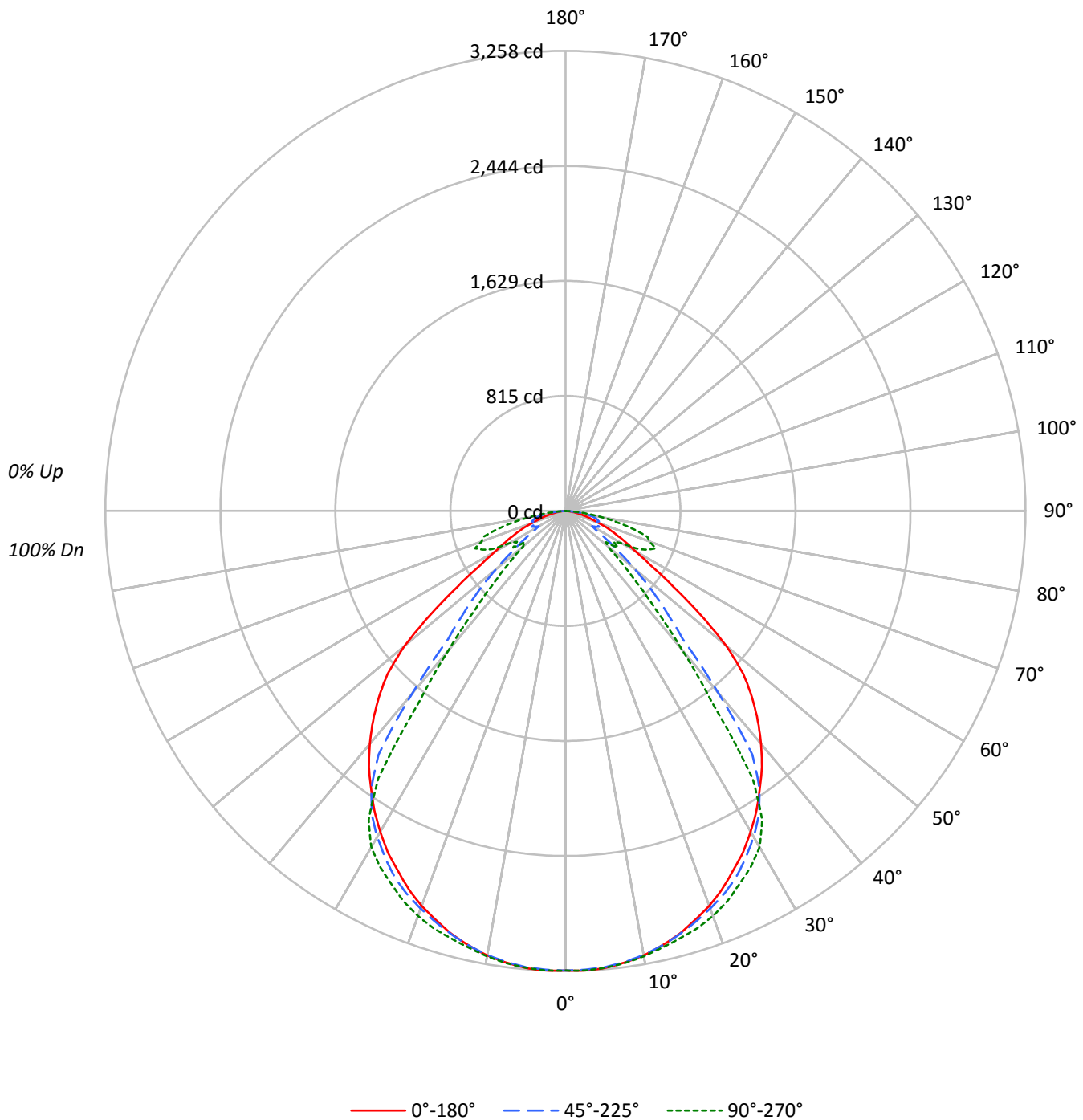
Lumens per Lamp: 1750 (6 lamps)
Luminaire Lumens: 6044.6 lumens
Efficiency: 57.6%
Efficacy: 46.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.24 / 1.16
Luminous Opening: Rectangular (W 1.75' x L: 1.75' x H: 0')
CIE Type: Direct

Input Watts (W): 129.6
Input Voltage (V): NR
Input Current (Ain): 1.081
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 13 HR
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				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	69	69	69	69	67	67	67	67	64	64	64	61	61	61	59	59	59
1	64	61	59	57	62	60	58	57	58	56	55	55	54	53	53	52	52
2	59	55	52	49	58	54	51	48	52	49	47	50	48	46	48	47	45
3	55	50	46	42	53	49	45	42	47	44	41	45	43	41	44	42	40
4	51	45	41	37	50	44	40	37	43	39	36	42	38	36	40	38	36
5	47	41	36	33	46	40	36	33	39	35	33	38	35	32	37	34	32
6	44	37	33	30	43	37	33	30	36	32	29	35	32	29	34	31	29
7	41	34	30	27	40	34	30	27	33	29	27	32	29	26	32	29	26
8	39	32	27	24	38	31	27	24	31	27	24	30	27	24	29	26	24
9	36	29	25	22	36	29	25	22	29	25	22	28	25	22	27	24	22
10	34	27	23	21	34	27	23	20	27	23	20	26	23	20	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11441	11441	11441
5°	11463	11438	11456
10°	11406	11392	11428
15°	11295	11306	11400
20°	11131	11206	11415
25°	10894	11091	11305
30°	10645	10816	11157
35°	10298	10272	9916
40°	9892	7763	5933
45°	9295	5035	3499
50°	8136	3483	2138
55°	5699	2249	2770
60°	4042	1532	3177
65°	3318	2187	5389
70°	2641	2415	6474
75°	2064	3178	6776
80°	1538	3380	5445
85°	1089	2339	3267



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	308.1	5.1	2.9
10°-20°	878.3	14.5	8.4
20°-30°	1316.6	21.8	12.5
30°-40°	1432.3	23.7	13.6
40°-50°	905.4	15.0	8.6
50°-60°	480.0	7.9	4.6
60°-70°	372.7	6.2	3.5
70°-80°	280.8	4.6	2.7
80°-90°	70.3	1.2	0.7
90°-100°	0.0	0.0	0.0
100°-110°	0.0	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°	2503.0	41.4	23.8
0°-40°	3935.3	65.1	37.5
0°-60°	5320.7	88.0	50.7
0°-90°	6044.6	100.0	57.6
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°	6044.6	100.0	57.6

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3255	3255	3255	3255	3255	
5°	3249	3245	3242	3243	3247	308
15°	3104	3103	3107	3120	3133	874
25°	2809	2822	2860	2898	2915	1295
35°	2400	2411	2394	2336	2311	1501
45°	1870	1559	1013	756	704	1429
55°	930	702	367	326	452	861
65°	399	267	263	503	648	401
75°	152	97	234	453	499	165
85°	27	27	58	74	81	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3255	3255	3255	3255	3255
2.5°	3258	3254	3251	3254	3257
5°	3249	3245	3242	3243	3247
7.5°	3225	3226	3222	3225	3229
10°	3196	3193	3192	3197	3202
12.5°	3153	3153	3153	3162	3167
15°	3104	3103	3107	3120	3133
17.5°	3040	3044	3054	3083	3100
20°	2976	2978	2996	3035	3052
22.5°	2900	2905	2935	2974	2993
25°	2809	2822	2860	2898	2915
27.5°	2725	2732	2767	2812	2842
30°	2623	2638	2665	2724	2749
32.5°	2517	2531	2551	2573	2593
35°	2400	2411	2394	2336	2311
37.5°	2286	2277	2175	1813	1697
40°	2156	2121	1692	1380	1293
42.5°	2017	1906	1230	1015	948
45°	1870	1559	1013	756	704
47.5°	1709	1197	828	580	525
50°	1488	965	637	436	391
52.5°	1201	824	488	339	362
55°	930	702	367	326	452
57.5°	713	592	269	404	406
60°	575	478	218	351	452
62.5°	480	361	242	406	587
65°	399	267	263	503	648
67.5°	329	194	217	531	692
70°	257	140	235	543	630
72.5°	196	115	248	496	610
75°	152	97	234	453	499
77.5°	112	76	206	354	380
80°	76	57	167	250	269
82.5°	48	41	112	152	160
85°	27	27	58	74	81
87.5°	15	16	24	28	28
90°	0	0	0	0	0

(END OF REPORT)