

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: P310514

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CP125-W2A-U-5500K**

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: P310514
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30HE-UNV-L82765-CP125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 5500K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC 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: N/A
Luminaire Lumens: 2851.0 lumens
Efficiency: N/A
Efficacy: 131.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

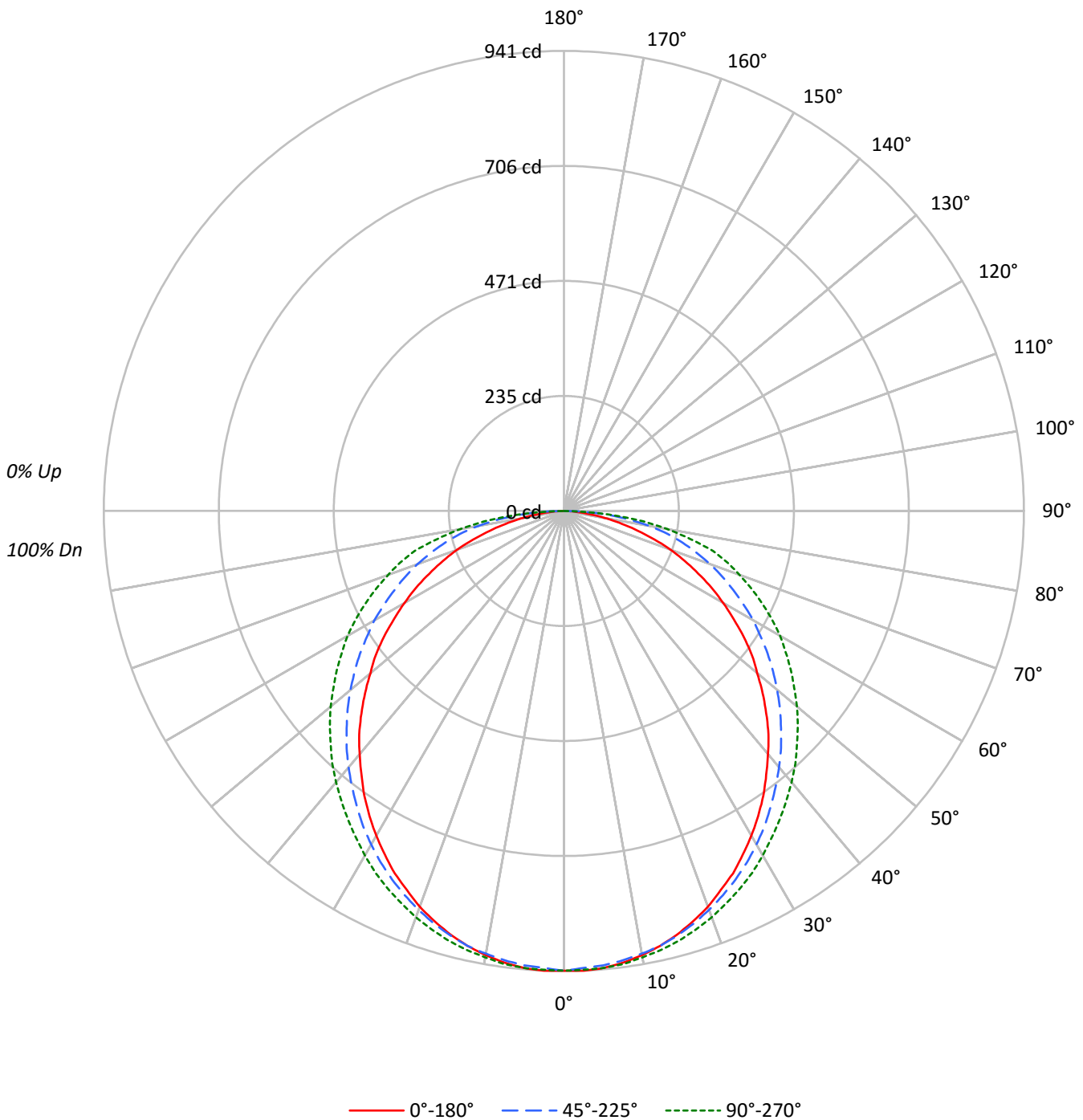
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1265	1265	1265
5°	1267	1260	1267
10°	1260	1256	1267
15°	1249	1252	1268
20°	1234	1243	1266
25°	1215	1234	1265
30°	1192	1224	1264
35°	1168	1212	1265
40°	1141	1203	1273
45°	1114	1195	1283
50°	1081	1192	1303
55°	1054	1194	1329
60°	1013	1204	1375
65°	967	1216	1424
70°	915	1254	1503
75°	816	1308	1642
80°	697	1385	1678
85°	497	1372	1607



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.0	3.1
10°-20°	254.4	8.9
20°-30°	384.3	13.5
30°-40°	463.2	16.2
40°-50°	486.2	17.1
50°-60°	454.9	16.0
60°-70°	375.7	13.2
70°-80°	256.0	9.0
80°-90°	87.3	3.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	727.7	25.5
0°-40°	1190.9	41.8
0°-60°	2132.0	74.8
0°-90°	2851.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2851.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	938	937	933	938	938	89
15°	897	898	899	908	910	253
25°	818	822	832	848	852	376
35°	711	719	738	762	770	445
45°	586	598	628	662	674	452
55°	449	467	509	550	567	401
65°	304	329	382	430	447	301
75°	157	193	252	299	316	167
85°	32	63	89	100	104	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	940.2	940.2	940.2	940.2	940.2
2.5°	941.2	940.2	935.5	940.2	939.3
5°	938.3	937.4	932.7	938.3	938.3
7.5°	931.7	931.7	927.0	933.6	934.6
10°	922.3	922.3	919.4	927.0	927.0
12.5°	910.9	910.9	910.9	918.5	919.4
15°	896.7	897.7	898.6	908.1	910.0
17.5°	879.7	881.6	884.4	895.8	897.7
20°	861.7	863.6	868.3	881.6	884.4
22.5°	839.0	843.8	850.4	865.5	868.3
25°	818.2	822.0	831.5	847.5	852.3
27.5°	792.7	798.3	810.6	827.7	834.3
30°	767.1	772.8	787.9	807.8	813.5
32.5°	739.7	748.2	764.3	785.1	791.7
35°	711.3	718.9	737.8	762.4	770.0
37.5°	680.1	690.5	711.3	737.8	747.3
40°	649.8	661.2	684.8	713.2	724.6
42.5°	619.6	630.9	657.4	689.6	700.9
45°	585.5	597.8	628.1	662.1	674.4
47.5°	551.5	566.6	599.7	635.7	648.9
50°	516.5	533.5	569.4	607.3	622.4
52.5°	485.3	501.3	539.2	579.8	594.0
55°	449.3	467.3	508.9	550.5	566.6
57.5°	412.4	432.3	476.7	522.1	538.2
60°	376.5	398.2	447.4	492.8	510.8
62.5°	341.5	363.2	414.3	461.6	479.6
65°	303.6	329.2	382.1	430.4	447.4
67.5°	267.7	295.1	350.9	398.2	415.3
70°	232.7	259.2	318.8	365.1	382.1
72.5°	194.9	225.1	284.7	333.0	350.9
75°	157.0	193.0	251.6	298.9	315.9
77.5°	122.0	158.9	217.6	256.3	264.9
80°	89.9	127.7	178.8	206.2	216.6
82.5°	57.7	95.5	136.2	156.1	164.6
85°	32.2	63.4	88.9	100.3	104.1
87.5°	13.2	27.4	35.9	40.7	40.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)