

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: P310515

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CP125-W2A-U-5700K**

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: P310515
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-5700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 5700K 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: 2859.0 lumens
Efficiency: N/A
Efficacy: 131.8 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

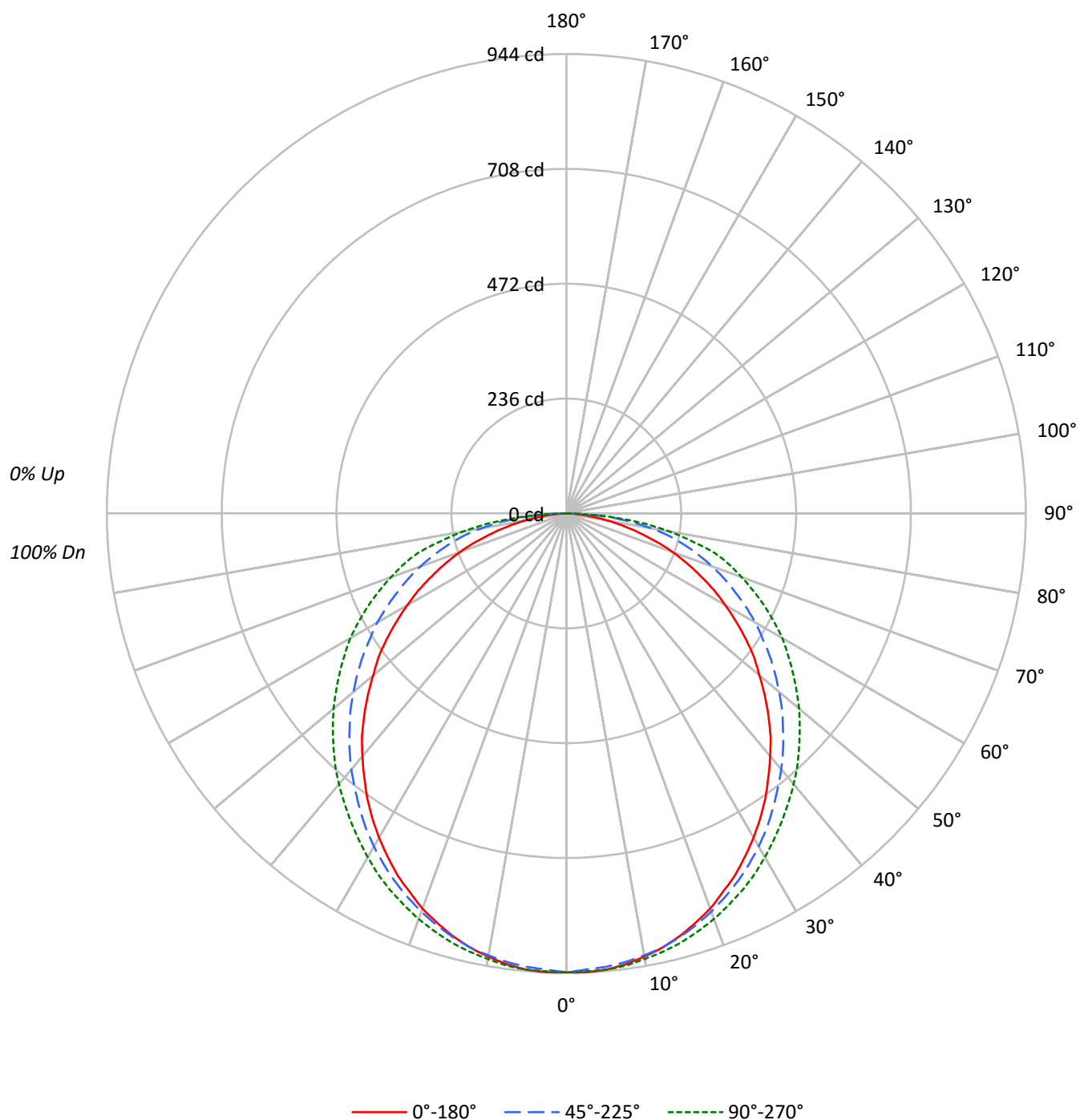
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1269	1269	1269
5°	1271	1263	1271
10°	1264	1260	1270
15°	1253	1255	1271
20°	1237	1247	1270
25°	1218	1238	1269
30°	1195	1228	1267
35°	1172	1215	1268
40°	1145	1206	1276
45°	1117	1198	1287
50°	1084	1195	1307
55°	1057	1197	1333
60°	1016	1207	1378
65°	969	1220	1429
70°	918	1258	1507
75°	819	1312	1647
80°	698	1389	1683
85°	499	1377	1610



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.2	3.1
10°-20°	255.1	8.9
20°-30°	385.4	13.5
30°-40°	464.5	16.2
40°-50°	487.6	17.1
50°-60°	456.2	16.0
60°-70°	376.7	13.2
70°-80°	256.7	9.0
80°-90°	87.6	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°	729.8	25.5
0°-40°	1194.2	41.8
0°-60°	2138.0	74.8
0°-90°	2859.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2859.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	941	940	935	941	941	89
15°	899	900	901	911	912	253
25°	820	824	834	850	855	378
35°	713	721	740	764	772	446
45°	587	600	630	664	676	453
55°	451	469	510	552	568	402
65°	304	330	383	432	449	302
75°	158	194	252	300	317	168
85°	32	64	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°	942.9	942.9	942.9	942.9	942.9
2.5°	943.8	942.9	938.1	942.9	941.9
5°	941.0	940.0	935.3	941.0	941.0
7.5°	934.3	934.3	929.6	936.2	937.2
10°	924.9	924.9	922.0	929.6	929.6
12.5°	913.5	913.5	913.5	921.1	922.0
15°	899.2	900.2	901.1	910.6	912.5
17.5°	882.2	884.1	886.9	898.3	900.2
20°	864.1	866.0	870.8	884.1	886.9
22.5°	841.4	846.1	852.8	867.9	870.8
25°	820.5	824.3	833.8	849.9	854.7
27.5°	794.9	800.6	812.9	830.0	836.6
30°	769.3	775.0	790.2	810.1	815.8
32.5°	741.8	750.3	766.4	787.3	793.9
35°	713.3	720.9	739.9	764.5	772.1
37.5°	682.0	692.5	713.3	739.9	749.4
40°	651.7	663.0	686.8	715.2	726.6
42.5°	621.3	632.7	659.3	691.5	702.9
45°	587.2	599.5	629.8	664.0	676.3
47.5°	553.0	568.2	601.4	637.4	650.7
50°	517.9	535.0	571.0	609.0	624.2
52.5°	486.6	502.7	540.7	581.5	595.7
55°	450.6	468.6	510.3	552.1	568.2
57.5°	413.6	433.5	478.1	523.6	539.7
60°	377.5	399.3	448.7	494.2	512.2
62.5°	342.4	364.2	415.5	462.9	480.9
65°	304.5	330.1	383.2	431.6	448.7
67.5°	268.4	296.0	351.9	399.3	416.4
70°	233.3	259.9	319.7	366.1	383.2
72.5°	195.4	225.8	285.5	333.9	351.9
75°	157.5	193.5	252.3	299.7	316.8
77.5°	122.4	159.4	218.2	257.1	265.6
80°	90.1	128.1	179.3	206.8	217.2
82.5°	57.9	95.8	136.6	156.5	165.1
85°	32.3	63.6	89.2	100.5	104.3
87.5°	13.3	27.5	36.0	40.8	40.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)