

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: P310292

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-CP187-W2A-U-2700K**

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: P310292
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-55HE-UNV-L82765-RDP-CP187-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET
Light Source: (336) 2700K 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: 2930.0 lumens
Efficiency: N/A
Efficacy: 68.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

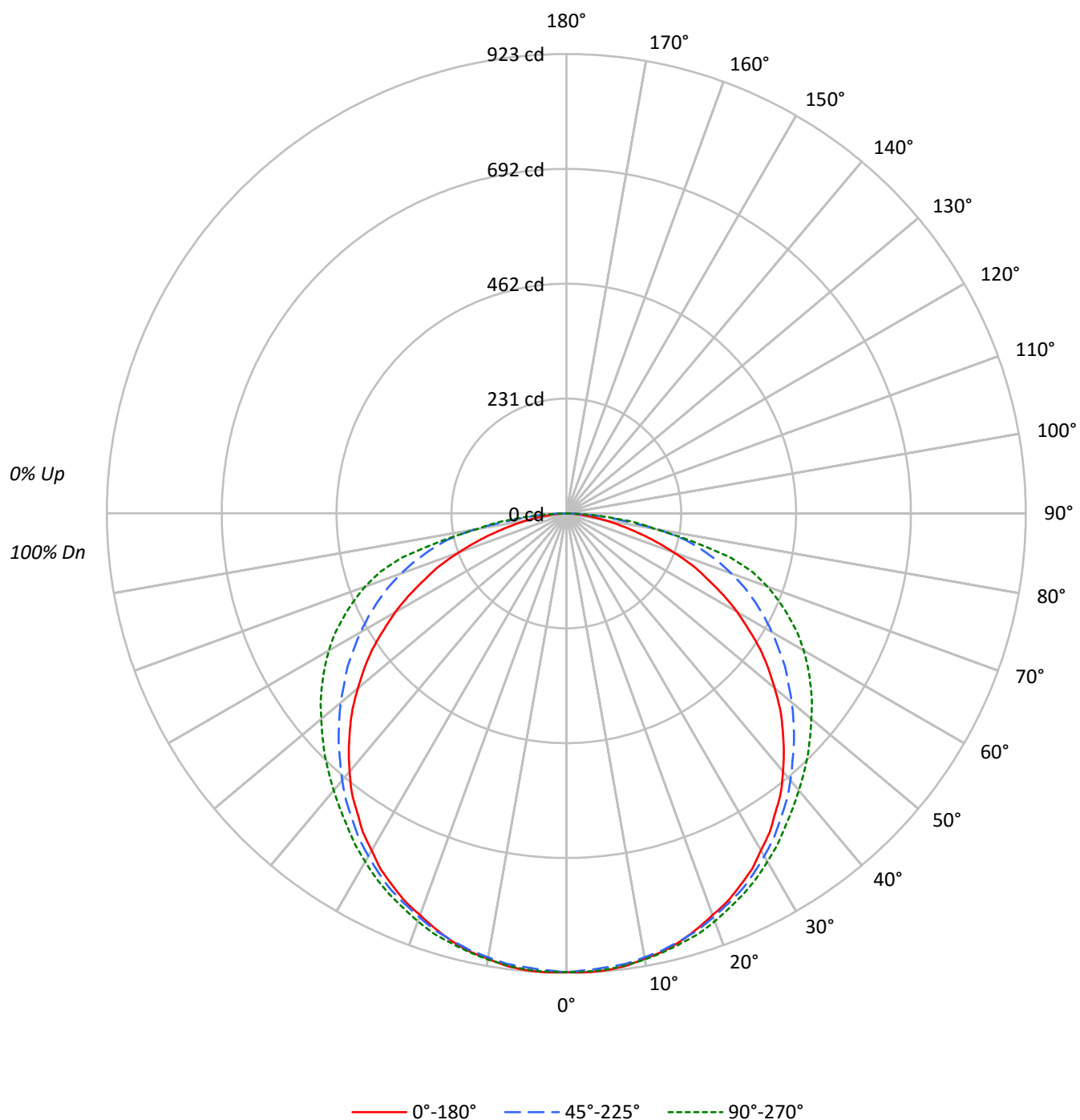
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10
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	93	89	92	89	87	88	86	84	82		
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67		
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56		
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47		
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40		
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35		
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31		
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27		
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24		
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1240	1240	1240
5°	1244	1237	1242
10°	1241	1237	1243
15°	1239	1237	1245
20°	1230	1236	1249
25°	1226	1238	1251
30°	1215	1235	1255
35°	1203	1232	1260
40°	1189	1230	1276
45°	1170	1231	1305
50°	1144	1238	1345
55°	1115	1258	1405
60°	1068	1283	1482
65°	999	1328	1573
70°	909	1389	1692
75°	770	1465	1768
80°	608	1475	1430
85°	449	1122	1257



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.4	3.0
10°-20°	251.5	8.6
20°-30°	384.7	13.1
30°-40°	470.2	16.0
40°-50°	501.2	17.1
50°-60°	479.2	16.4
60°-70°	405.9	13.9
70°-80°	272.8	9.3
80°-90°	77.0	2.6
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°	723.6	24.7
0°-40°	1193.9	40.7
0°-60°	2174.3	74.2
0°-90°	2930.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2930.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	921	921	921	921	921	
5°	921	920	916	920	920	88
15°	889	889	888	895	894	251
25°	826	828	834	842	843	380
35°	732	738	750	764	767	459
45°	615	625	647	674	686	474
55°	475	493	536	578	599	423
65°	314	346	417	472	494	312
75°	148	202	282	330	340	159
85°	29	60	73	78	81	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	921.4	921.4	921.4	921.4	921.4
2.5°	922.9	922.9	918.5	921.4	921.4
5°	921.4	919.9	915.6	919.9	919.9
7.5°	917.0	915.6	912.7	917.0	915.6
10°	908.3	908.3	905.4	909.8	909.8
12.5°	901.1	899.6	898.1	904.0	902.5
15°	889.4	889.4	888.0	895.2	893.8
17.5°	874.9	876.3	877.8	883.6	885.1
20°	858.9	861.8	863.3	872.0	872.0
22.5°	844.4	845.8	848.7	857.5	857.5
25°	825.5	828.4	834.2	841.5	842.9
27.5°	806.6	808.0	815.3	825.5	826.9
30°	781.9	786.2	795.0	806.6	808.0
32.5°	760.1	764.4	774.6	786.2	789.1
35°	732.5	738.3	749.9	764.4	767.4
37.5°	707.8	712.1	726.7	742.6	747.0
40°	677.2	686.0	700.5	719.4	726.7
42.5°	646.7	655.4	672.9	697.6	706.3
45°	614.8	624.9	646.7	674.3	686.0
47.5°	582.8	594.4	619.1	651.1	664.2
50°	546.4	561.0	591.5	627.8	642.4
52.5°	511.6	529.0	562.4	603.1	622.0
55°	475.2	492.7	536.3	578.4	598.8
57.5°	434.5	457.8	505.8	553.7	575.5
60°	396.8	418.6	476.7	529.0	550.8
62.5°	356.1	385.1	447.6	502.8	524.6
65°	313.9	345.9	417.1	472.3	494.1
67.5°	276.1	311.0	386.6	441.8	463.6
70°	231.1	274.7	353.2	408.4	430.2
72.5°	188.9	236.9	318.3	372.0	392.4
75°	148.2	202.0	281.9	329.9	340.1
77.5°	110.5	167.1	244.2	264.5	257.2
80°	78.5	133.7	190.4	180.2	184.6
82.5°	50.9	101.7	117.7	133.7	138.1
85°	29.1	59.6	72.7	78.5	81.4
87.5°	13.1	21.8	29.1	29.1	27.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)