

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: P307999

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CP187-W2A-U-3500K**

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: P307999
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-39-UNV-L82765-S-CP187-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 3500K 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: 3433.0 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

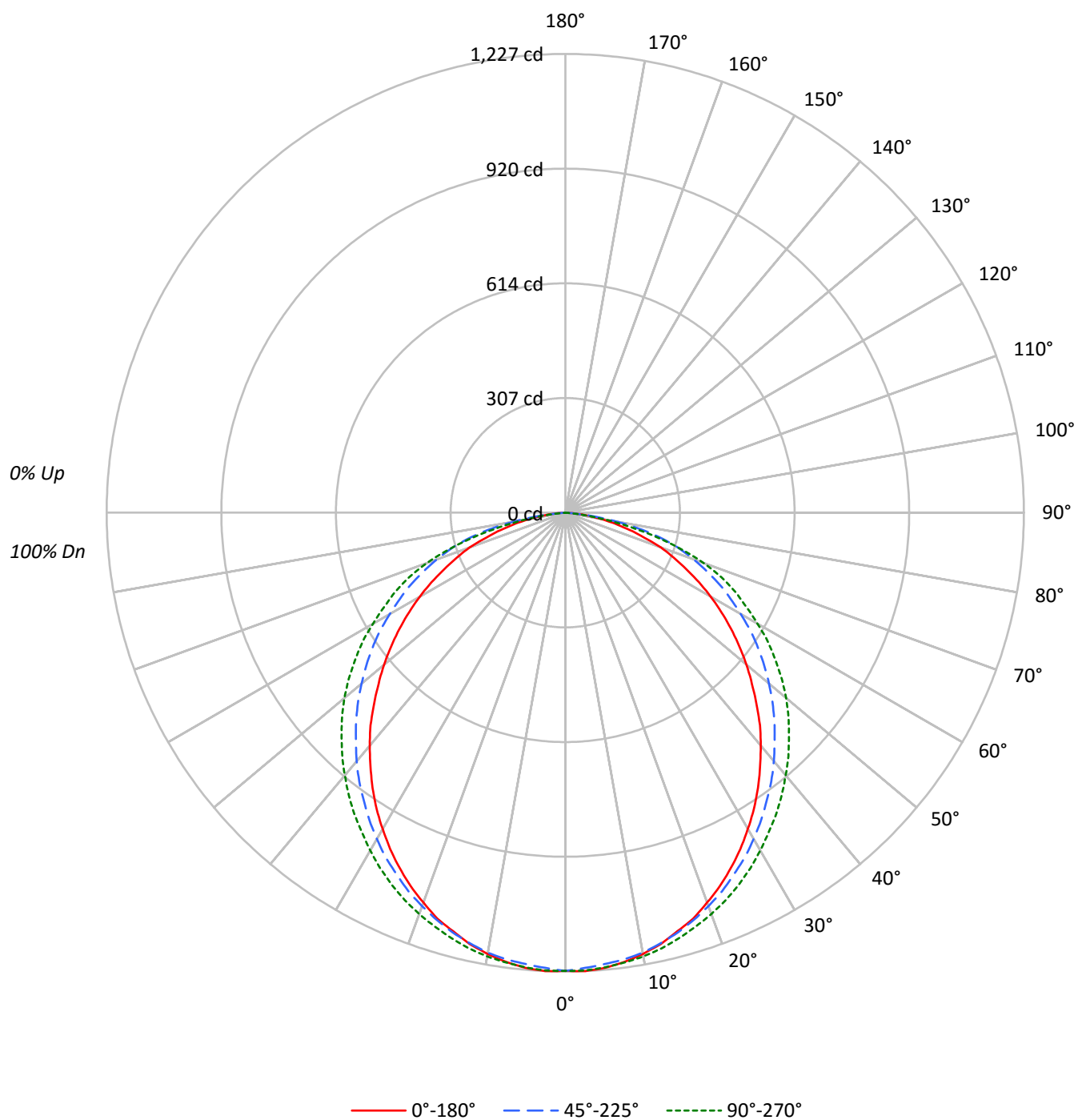
Input Watts (W): 33.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3298	3298	3298
5°	3301	3274	3297
10°	3274	3265	3293
15°	3229	3239	3282
20°	3178	3207	3271
25°	3113	3169	3260
30°	3036	3131	3242
35°	2952	3087	3232
40°	2858	3049	3223
45°	2753	3012	3220
50°	2651	2979	3228
55°	2540	2955	3218
60°	2419	2913	3197
65°	2276	2905	3197
70°	2142	2880	3107
75°	1858	2813	2654
80°	1503	2269	1767
85°	997	787	525



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.7	3.4
10°-20°	329.3	9.6
20°-30°	494.0	14.4
30°-40°	589.3	17.2
40°-50°	609.2	17.7
50°-60°	556.2	16.2
60°-70°	437.7	12.7
70°-80°	254.8	7.4
80°-90°	46.9	1.4
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°	939.0	27.4
0°-40°	1528.3	44.5
0°-60°	2693.6	78.5
0°-90°	3433.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3433.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1226	1226	1226	1226	1226	
5°	1222	1219	1212	1222	1220	116
15°	1159	1161	1162	1178	1178	327
25°	1048	1054	1067	1093	1098	483
35°	899	911	940	975	984	562
45°	723	747	792	836	846	559
55°	541	570	630	676	686	484
65°	357	395	456	492	502	355
75°	179	221	271	266	255	190
85°	32	46	26	20	17	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1225.5	1225.5	1225.5	1225.5	1225.5
2.5°	1227.2	1223.8	1218.7	1227.2	1225.5
5°	1222.1	1218.7	1211.9	1222.1	1220.4
7.5°	1211.9	1208.5	1205.1	1215.3	1213.6
10°	1198.3	1196.6	1194.9	1206.8	1205.1
12.5°	1181.3	1181.3	1179.6	1193.2	1193.2
15°	1159.1	1160.8	1162.5	1177.9	1177.9
17.5°	1138.7	1137.0	1142.1	1159.1	1160.8
20°	1109.8	1113.2	1120.0	1140.4	1142.1
22.5°	1080.8	1084.2	1096.2	1116.6	1121.7
25°	1048.5	1053.6	1067.2	1092.8	1097.9
27.5°	1014.5	1021.3	1040.0	1067.2	1072.3
30°	977.0	987.2	1007.7	1038.3	1043.4
32.5°	939.6	949.8	975.3	1006.0	1012.8
35°	898.7	910.6	939.6	975.3	983.8
37.5°	856.2	871.5	905.5	941.3	951.5
40°	813.6	830.6	868.1	905.5	917.4
42.5°	771.1	788.1	828.9	871.5	883.4
45°	723.4	747.2	791.5	835.7	846.0
47.5°	677.4	703.0	752.3	796.6	810.2
50°	633.2	658.7	711.5	757.4	771.1
52.5°	587.2	614.5	670.6	718.3	730.2
55°	541.3	570.2	629.8	675.7	686.0
57.5°	495.3	526.0	587.2	631.5	643.4
60°	449.4	481.7	541.3	585.5	594.0
62.5°	403.4	437.4	498.7	537.9	546.4
65°	357.4	394.9	456.2	491.9	502.1
67.5°	313.2	350.6	410.2	444.3	452.8
70°	272.3	306.4	366.0	391.5	394.9
72.5°	221.3	263.8	321.7	335.3	326.8
75°	178.7	221.3	270.6	265.5	255.3
77.5°	136.2	178.7	211.1	194.0	180.4
80°	97.0	139.6	146.4	120.9	114.0
82.5°	63.0	97.0	81.7	63.0	51.1
85°	32.3	46.0	25.5	20.4	17.0
87.5°	10.2	6.8	3.4	3.4	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)