

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: P308000

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CP187-W2A-U-4000K**

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: P308000
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-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 4000K 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: 3509.0 lumens
Efficiency: N/A
Efficacy: 104.1 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

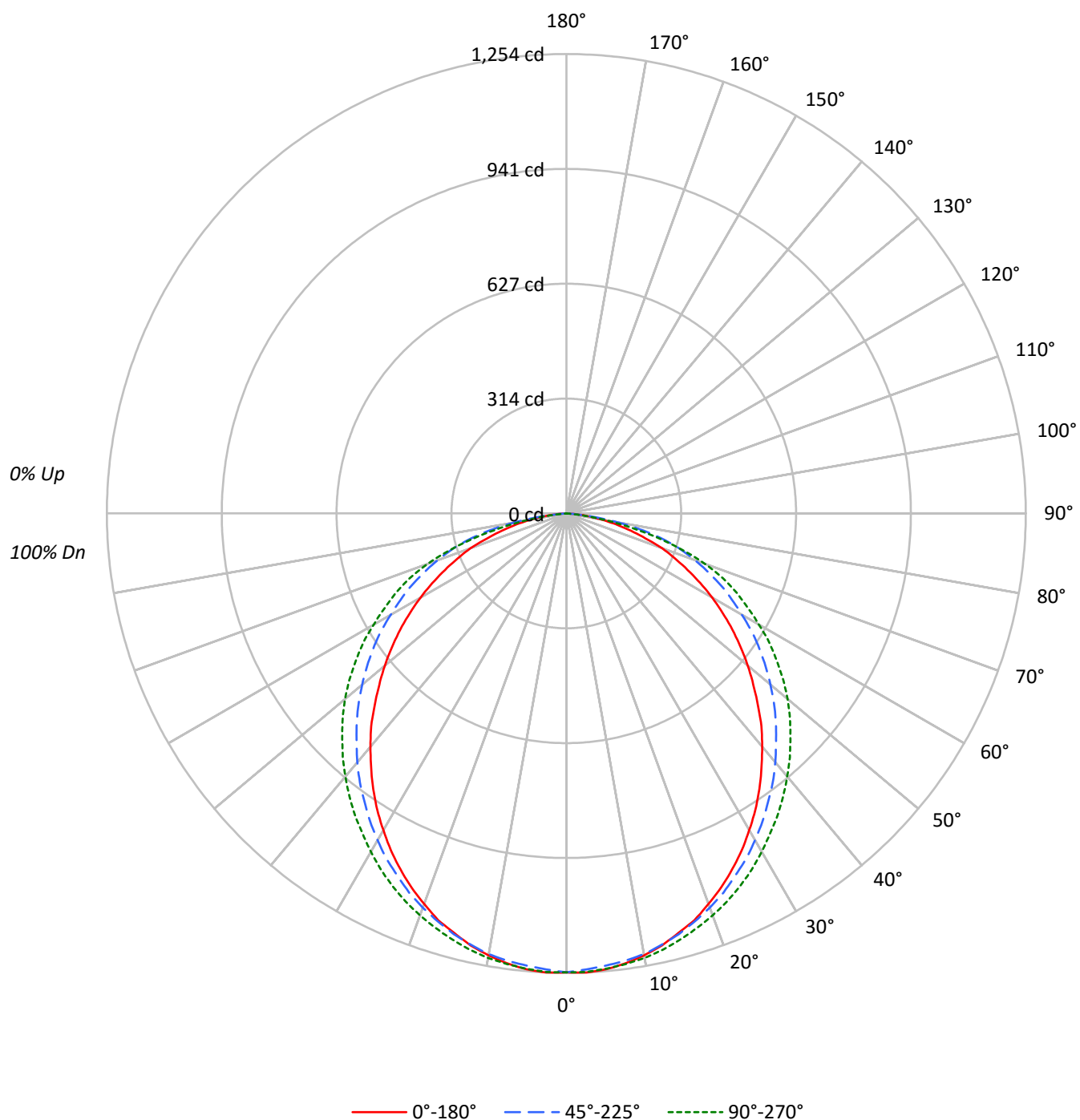
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308000

CATALOG NUMBER: 14FCZ2-39-UNV-L82765-S-CP187-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P308000

CATALOG NUMBER: 14FCZ2-39-UNV-L82765-S-CP187-W2A-U-4000K

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°	3371	3371	3371
5°	3374	3346	3370
10°	3347	3337	3366
15°	3301	3310	3354
20°	3248	3278	3343
25°	3182	3239	3332
30°	3103	3200	3314
35°	3018	3155	3303
40°	2921	3117	3294
45°	2814	3079	3291
50°	2709	3044	3299
55°	2596	3020	3289
60°	2472	2978	3268
65°	2327	2969	3268
70°	2190	2943	3175
75°	1900	2876	2714
80°	1537	2318	1807
85°	1022	806	537



TEST NUMBER: P308000

CATALOG NUMBER: 14FCZ2-39-UNV-L82765-S-CP187-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.3	3.4
10°-20°	336.6	9.6
20°-30°	504.9	14.4
30°-40°	602.3	17.2
40°-50°	622.7	17.7
50°-60°	568.5	16.2
60°-70°	447.4	12.7
70°-80°	260.4	7.4
80°-90°	48.0	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°	959.8	27.4
0°-40°	1562.1	44.5
0°-60°	2753.2	78.5
0°-90°	3509.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3509.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1253	1253	1253	1253	1253	
5°	1249	1246	1239	1249	1247	118
15°	1185	1186	1188	1204	1204	334
25°	1072	1077	1091	1117	1122	493
35°	919	931	960	997	1006	574
45°	739	764	809	854	865	571
55°	553	583	644	691	701	495
65°	365	404	466	503	513	363
75°	183	226	277	271	261	194
85°	33	47	26	21	17	43
90°	0	0	0	0	0	



TEST NUMBER: P308000

CATALOG NUMBER: 14FCZ2-39-UNV-L82765-S-CP187-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1252.7	1252.7	1252.7	1252.7	1252.7
2.5°	1254.4	1250.9	1245.7	1254.4	1252.7
5°	1249.2	1245.7	1238.7	1249.2	1247.4
7.5°	1238.7	1235.3	1231.8	1242.2	1240.5
10°	1224.8	1223.1	1221.3	1233.5	1231.8
12.5°	1207.4	1207.4	1205.7	1219.6	1219.6
15°	1184.8	1186.5	1188.3	1203.9	1203.9
17.5°	1163.9	1162.2	1167.4	1184.8	1186.5
20°	1134.3	1137.8	1144.8	1165.7	1167.4
22.5°	1104.8	1108.3	1120.4	1141.3	1146.5
25°	1071.7	1076.9	1090.9	1117.0	1122.2
27.5°	1036.9	1043.9	1063.0	1090.9	1096.1
30°	998.6	1009.1	1030.0	1061.3	1066.5
32.5°	960.4	970.8	996.9	1028.2	1035.2
35°	918.6	930.8	960.4	996.9	1005.6
37.5°	875.1	890.8	925.6	962.1	972.5
40°	831.6	849.0	887.3	925.6	937.8
42.5°	788.1	805.5	847.3	890.8	903.0
45°	739.4	763.8	809.0	854.2	864.7
47.5°	692.4	718.5	769.0	814.2	828.1
50°	647.2	673.3	727.2	774.2	788.1
52.5°	600.2	628.1	685.5	734.2	746.4
55°	553.3	582.8	643.7	690.7	701.1
57.5°	506.3	537.6	600.2	645.5	657.6
60°	459.3	492.4	553.3	598.5	607.2
62.5°	412.3	447.1	509.8	549.8	558.5
65°	365.4	403.6	466.3	502.8	513.2
67.5°	320.1	358.4	419.3	454.1	462.8
70°	278.4	313.2	374.1	400.2	403.6
72.5°	226.2	269.7	328.8	342.7	334.0
75°	182.7	226.2	276.6	271.4	261.0
77.5°	139.2	182.7	215.7	198.3	184.4
80°	99.2	142.7	149.6	123.5	116.6
82.5°	64.4	99.2	83.5	64.4	52.2
85°	33.1	47.0	26.1	20.9	17.4
87.5°	10.4	7.0	3.5	3.5	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)