

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: P307956

Luminaire Tested: **14FCZ2-35-UNV-L82765-S-CP187-W2A-U-4500K**

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: P307956
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: 14FCZ2-35-UNV-L82765-S-CP187-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 4500K 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: 3236.0 lumens
Efficiency: N/A
Efficacy: 107.5 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

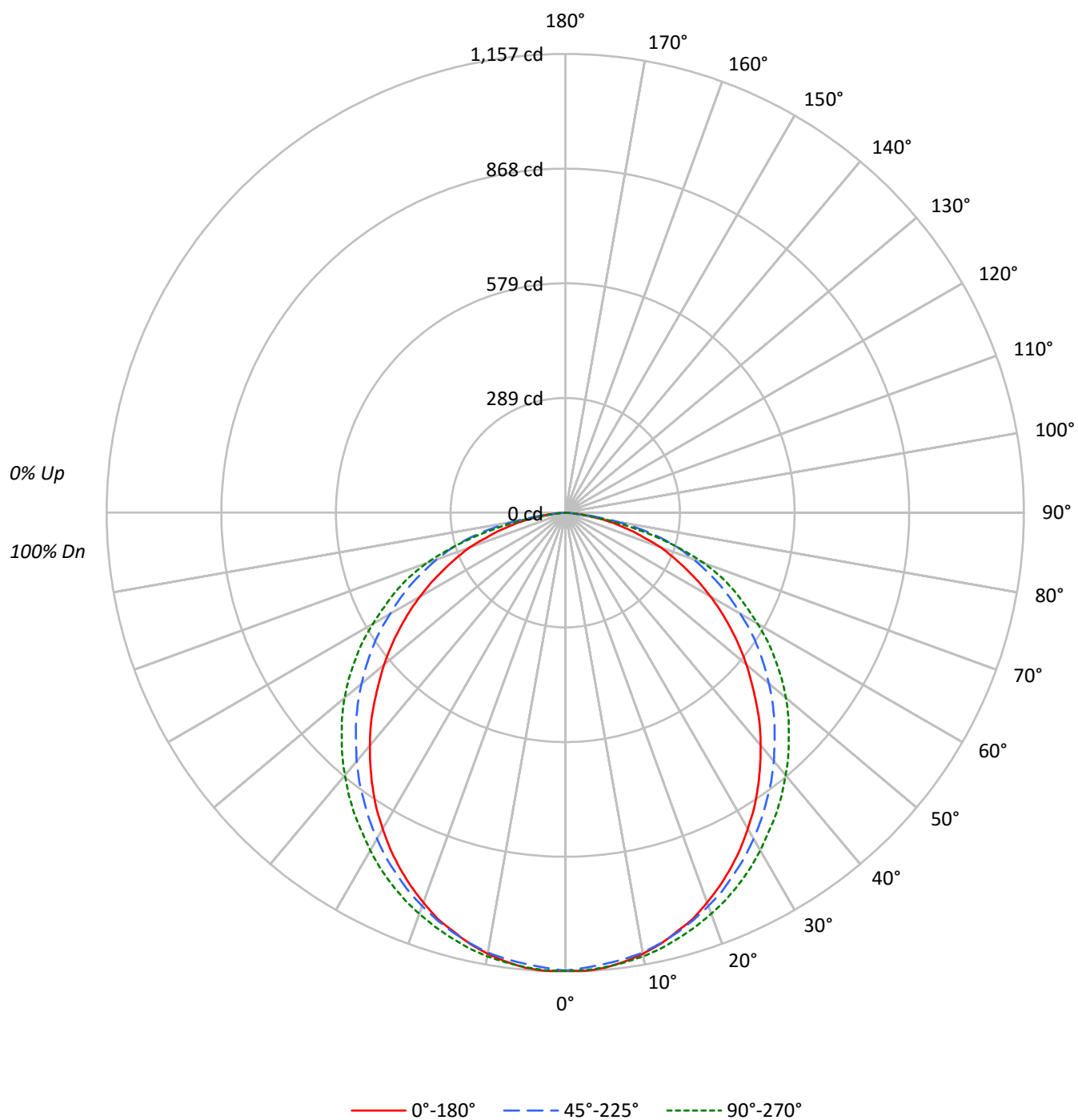
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P307956

CATALOG NUMBER: 14FCZ2-35-UNV-L82765-S-CP187-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P307956

CATALOG NUMBER: 14FCZ2-35-UNV-L82765-S-CP187-W2A-U-4500K

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°	3109	3109	3109
5°	3112	3086	3108
10°	3086	3078	3104
15°	3044	3053	3093
20°	2996	3023	3083
25°	2934	2987	3073
30°	2861	2951	3056
35°	2783	2910	3047
40°	2694	2875	3038
45°	2595	2839	3035
50°	2499	2808	3043
55°	2394	2785	3034
60°	2280	2746	3014
65°	2145	2738	3014
70°	2020	2714	2928
75°	1752	2652	2503
80°	1418	2139	1666
85°	942	744	494



TEST NUMBER: P307956

CATALOG NUMBER: 14FCZ2-35-UNV-L82765-S-CP187-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.1	3.4
10°-20°	310.4	9.6
20°-30°	465.6	14.4
30°-40°	555.4	17.2
40°-50°	574.2	17.7
50°-60°	524.3	16.2
60°-70°	412.6	12.7
70°-80°	240.2	7.4
80°-90°	44.3	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°	885.1	27.4
0°-40°	1440.6	44.5
0°-60°	2539.0	78.5
0°-90°	3236.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3236.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1155	1155	1155	1155	1155	
5°	1152	1149	1142	1152	1150	109
15°	1093	1094	1096	1110	1110	308
25°	988	993	1006	1030	1035	455
35°	847	858	886	919	927	530
45°	682	704	746	788	797	527
55°	510	538	594	637	647	456
65°	337	372	430	464	473	335
75°	168	209	255	250	241	179
85°	30	43	24	19	16	39
90°	0	0	0	0	0	



TEST NUMBER: P307956

CATALOG NUMBER: 14FCZ2-35-UNV-L82765-S-CP187-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1155.2	1155.2	1155.2	1155.2	1155.2
2.5°	1156.8	1153.6	1148.8	1156.8	1155.2
5°	1152.0	1148.8	1142.4	1152.0	1150.4
7.5°	1142.4	1139.2	1135.9	1145.6	1144.0
10°	1129.5	1127.9	1126.3	1137.5	1135.9
12.5°	1113.5	1113.5	1111.9	1124.7	1124.7
15°	1092.6	1094.2	1095.8	1110.3	1110.3
17.5°	1073.4	1071.8	1076.6	1092.6	1094.2
20°	1046.1	1049.3	1055.7	1075.0	1076.6
22.5°	1018.8	1022.0	1033.3	1052.5	1057.3
25°	988.3	993.1	1006.0	1030.1	1034.9
27.5°	956.2	962.7	980.3	1006.0	1010.8
30°	920.9	930.6	949.8	978.7	983.5
32.5°	885.7	895.3	919.3	948.2	954.6
35°	847.1	858.4	885.7	919.3	927.4
37.5°	807.0	821.5	853.6	887.3	896.9
40°	766.9	783.0	818.3	853.6	864.8
42.5°	726.8	742.9	781.4	821.5	832.7
45°	681.9	704.4	746.1	787.8	797.4
47.5°	638.6	662.6	709.2	750.9	763.7
50°	596.9	620.9	670.7	714.0	726.8
52.5°	553.5	579.2	632.2	677.1	688.3
55°	510.2	537.5	593.6	637.0	646.6
57.5°	466.9	495.8	553.5	595.2	606.5
60°	423.6	454.1	510.2	551.9	560.0
62.5°	380.3	412.3	470.1	507.0	515.0
65°	336.9	372.2	430.0	463.7	473.3
67.5°	295.2	330.5	386.7	418.8	426.8
70°	256.7	288.8	345.0	369.0	372.2
72.5°	208.6	248.7	303.2	316.1	308.1
75°	168.5	208.6	255.1	250.3	240.7
77.5°	128.4	168.5	199.0	182.9	170.1
80°	91.5	131.6	138.0	113.9	107.5
82.5°	59.4	91.5	77.0	59.4	48.1
85°	30.5	43.3	24.1	19.3	16.0
87.5°	9.6	6.4	3.2	3.2	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)