

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: P308866

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CP250-W2A-U-5000K**

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: P308866
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L82765-CP250-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 3000K 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: 3803.0 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

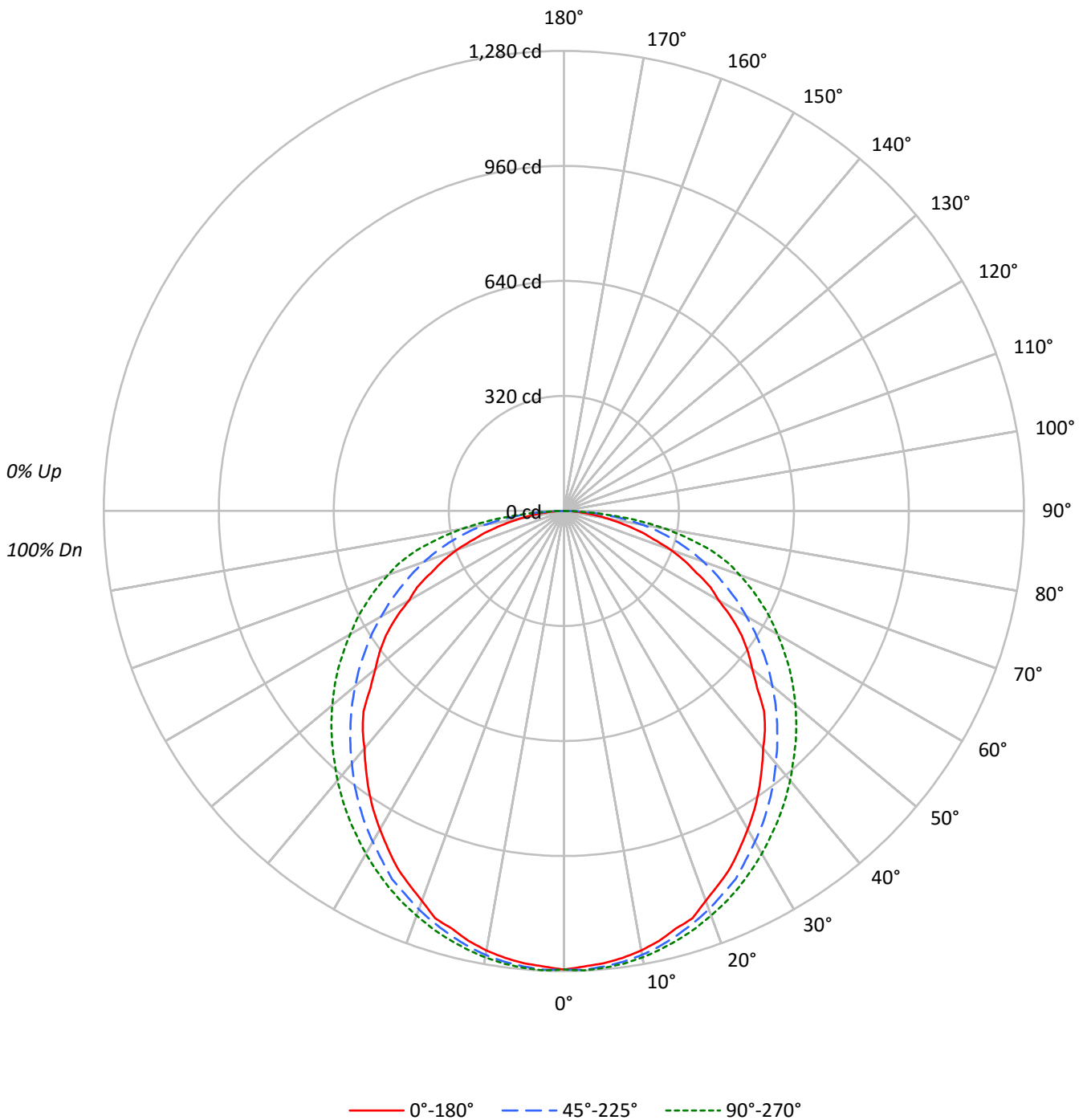
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3433	3433	3433
5°	3412	3437	3447
10°	3392	3427	3447
15°	3352	3402	3438
20°	3305	3378	3430
25°	3253	3356	3426
30°	3178	3303	3422
35°	3109	3265	3426
40°	3031	3223	3440
45°	2999	3193	3470
50°	2865	3170	3520
55°	2835	3160	3595
60°	2674	3154	3693
65°	2596	3175	3859
70°	2492	3251	4096
75°	2271	3350	4409
80°	1946	3470	4457
85°	1575	3316	3822



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.7	3.2
10°-20°	344.4	9.1
20°-30°	518.4	13.6
30°-40°	622.2	16.4
40°-50°	650.3	17.1
50°-60°	606.0	15.9
60°-70°	497.0	13.1
70°-80°	334.9	8.8
80°-90°	109.1	2.9
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°	983.5	25.9
0°-40°	1605.7	42.2
0°-60°	2862.0	75.3
0°-90°	3803.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3803.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1276	1276	1276	1276	1276	
5°	1263	1267	1272	1274	1276	120
15°	1203	1210	1221	1232	1234	340
25°	1096	1103	1130	1147	1154	504
35°	946	959	994	1028	1043	592
45°	788	794	839	890	912	602
55°	604	615	674	737	766	535
65°	408	426	499	572	606	406
75°	218	242	322	395	424	230
85°	51	73	107	126	124	61
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1275.9	1275.9	1275.9	1275.9	1275.9
2.5°	1268.7	1272.3	1277.8	1279.6	1279.6
5°	1263.2	1266.8	1272.3	1274.1	1275.9
7.5°	1254.1	1257.7	1265.0	1268.7	1270.5
10°	1241.4	1245.0	1254.1	1259.6	1261.4
12.5°	1225.0	1228.6	1239.5	1246.8	1248.6
15°	1203.1	1210.4	1221.3	1232.3	1234.1
17.5°	1188.6	1186.8	1201.3	1214.1	1217.7
20°	1154.0	1163.1	1179.5	1194.0	1197.7
22.5°	1124.9	1132.1	1154.0	1170.4	1177.6
25°	1095.7	1103.0	1130.3	1146.7	1154.0
27.5°	1059.3	1070.3	1095.7	1119.4	1128.5
30°	1022.9	1033.9	1063.0	1090.3	1101.2
32.5°	986.5	999.3	1030.2	1059.3	1072.1
35°	946.5	959.2	993.8	1028.4	1043.0
37.5°	904.6	921.0	957.4	995.6	1012.0
40°	862.8	879.1	917.4	961.0	979.3
42.5°	828.2	835.5	879.1	926.5	944.7
45°	788.1	793.6	839.1	890.1	911.9
47.5°	729.9	749.9	799.1	855.5	877.3
50°	684.4	706.2	757.2	817.3	840.9
52.5°	646.2	660.7	717.1	777.2	804.5
55°	604.3	615.2	673.5	737.2	766.3
57.5°	553.3	573.4	631.6	697.1	726.2
60°	496.9	522.4	586.1	657.1	686.2
62.5°	460.5	475.1	544.2	615.2	648.0
65°	407.7	425.9	498.7	571.5	606.1
67.5°	364.0	382.2	456.9	529.7	564.3
70°	316.7	334.9	413.2	486.0	520.6
72.5°	262.1	287.6	369.5	442.3	478.7
75°	218.4	242.1	322.2	395.0	424.1
77.5°	169.3	200.2	274.8	334.9	356.8
80°	125.6	156.5	223.9	267.6	287.6
82.5°	85.5	116.5	167.5	200.2	211.1
85°	51.0	72.8	107.4	125.6	123.8
87.5°	23.7	30.9	43.7	43.7	41.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)