

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: P308819

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CP250-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: P308819
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: 22FCZ2-39HE-UNV-L82765-CP250-W2A-U-4000K
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: 3286.0 lumens
Efficiency: N/A
Efficacy: 100.2 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

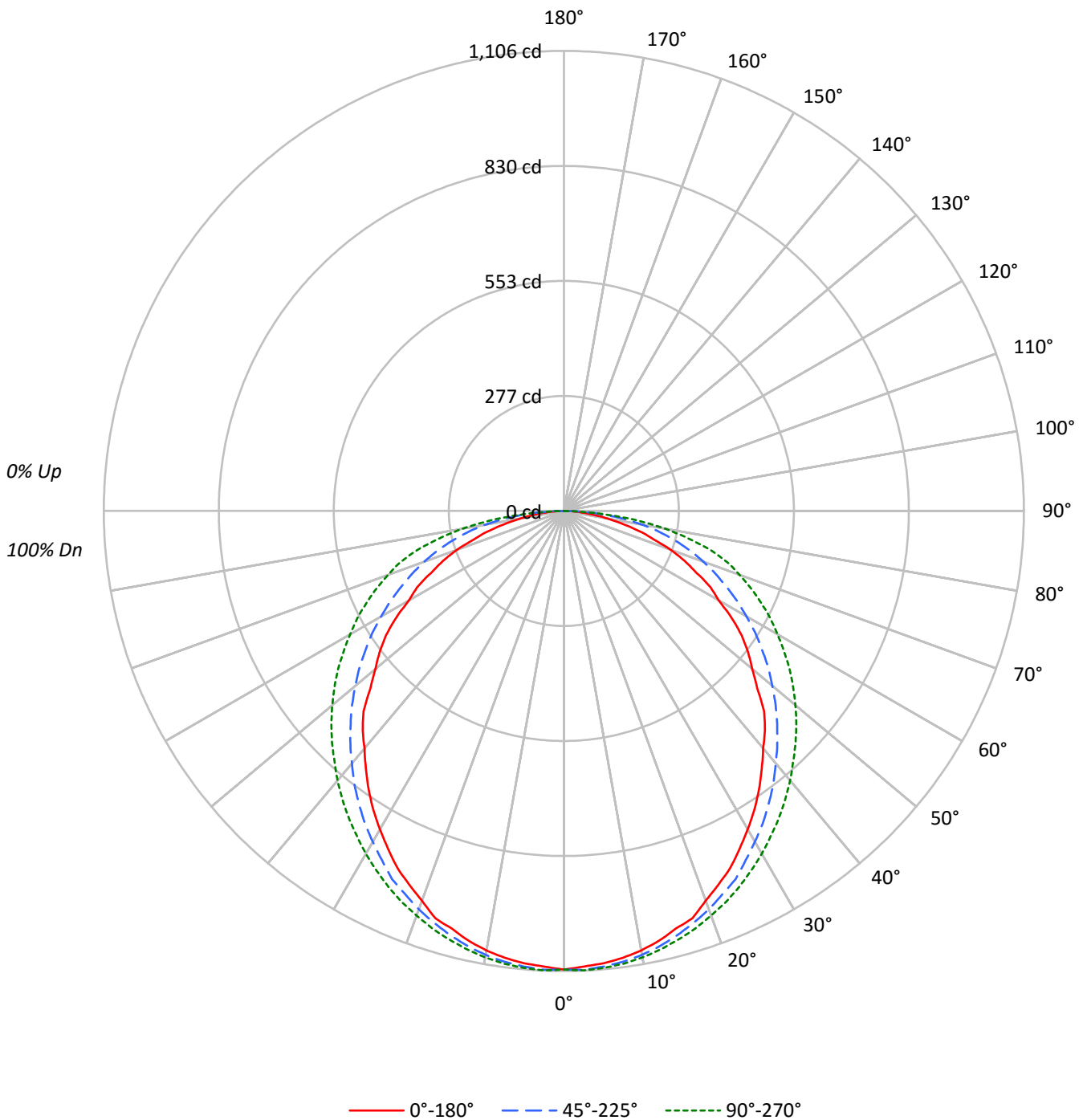
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2967	2967	2967
5°	2948	2969	2978
10°	2931	2961	2978
15°	2896	2940	2971
20°	2855	2918	2964
25°	2811	2900	2961
30°	2747	2854	2957
35°	2687	2821	2961
40°	2619	2785	2972
45°	2592	2759	2998
50°	2475	2739	3042
55°	2449	2730	3106
60°	2311	2725	3191
65°	2243	2744	3335
70°	2153	2809	3539
75°	1962	2895	3810
80°	1681	2997	3851
85°	1359	2865	3301



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.3	3.2
10°-20°	297.6	9.1
20°-30°	447.9	13.6
30°-40°	537.6	16.4
40°-50°	561.9	17.1
50°-60°	523.6	15.9
60°-70°	429.5	13.1
70°-80°	289.4	8.8
80°-90°	94.2	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°	849.8	25.9
0°-40°	1387.4	42.2
0°-60°	2472.9	75.3
0°-90°	3286.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3286.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1102	1102	1102	1102	1102	
5°	1092	1095	1099	1101	1102	104
15°	1040	1046	1055	1065	1066	294
25°	947	953	977	991	997	435
35°	818	829	859	889	901	511
45°	681	686	725	769	788	520
55°	522	532	582	637	662	463
65°	352	368	431	494	524	350
75°	189	209	278	341	366	198
85°	44	63	93	108	107	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1102.5	1102.5	1102.5	1102.5	1102.5
2.5°	1096.2	1099.3	1104.1	1105.6	1105.6
5°	1091.5	1094.6	1099.3	1100.9	1102.5
7.5°	1083.6	1086.8	1093.0	1096.2	1097.8
10°	1072.6	1075.7	1083.6	1088.3	1089.9
12.5°	1058.4	1061.6	1071.0	1077.3	1078.9
15°	1039.6	1045.9	1055.3	1064.7	1066.3
17.5°	1027.0	1025.4	1038.0	1049.0	1052.2
20°	997.1	1005.0	1019.1	1031.7	1034.9
22.5°	971.9	978.2	997.1	1011.3	1017.6
25°	946.8	953.1	976.7	990.8	997.1
27.5°	915.3	924.8	946.8	967.2	975.1
30°	883.9	893.3	918.5	942.1	951.5
32.5°	852.4	863.4	890.2	915.3	926.3
35°	817.8	828.8	858.7	888.6	901.2
37.5°	781.6	795.8	827.3	860.3	874.4
40°	745.5	759.6	792.7	830.4	846.1
42.5°	715.6	721.9	759.6	800.5	816.2
45°	681.0	685.7	725.0	769.1	787.9
47.5°	630.7	648.0	690.4	739.2	758.1
50°	591.3	610.2	654.3	706.2	726.6
52.5°	558.3	570.9	619.7	671.6	695.1
55°	522.1	531.6	581.9	637.0	662.1
57.5°	478.1	495.4	545.7	602.4	627.5
60°	429.4	451.4	506.4	567.8	592.9
62.5°	397.9	410.5	470.2	531.6	559.9
65°	352.3	368.0	430.9	493.8	523.7
67.5°	314.5	330.3	394.8	457.7	487.5
70°	273.7	289.4	357.0	419.9	449.8
72.5°	226.5	248.5	319.3	382.2	413.6
75°	188.7	209.2	278.4	341.3	366.4
77.5°	146.3	173.0	237.5	289.4	308.3
80°	108.5	135.3	193.4	231.2	248.5
82.5°	73.9	100.7	144.7	173.0	182.4
85°	44.0	62.9	92.8	108.5	106.9
87.5°	20.4	26.7	37.7	37.7	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)