

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: P308824

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-CP250-W2A-U-6500K**

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: P308824
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-6500K
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: 3441.0 lumens
Efficiency: N/A
Efficacy: 101.8 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

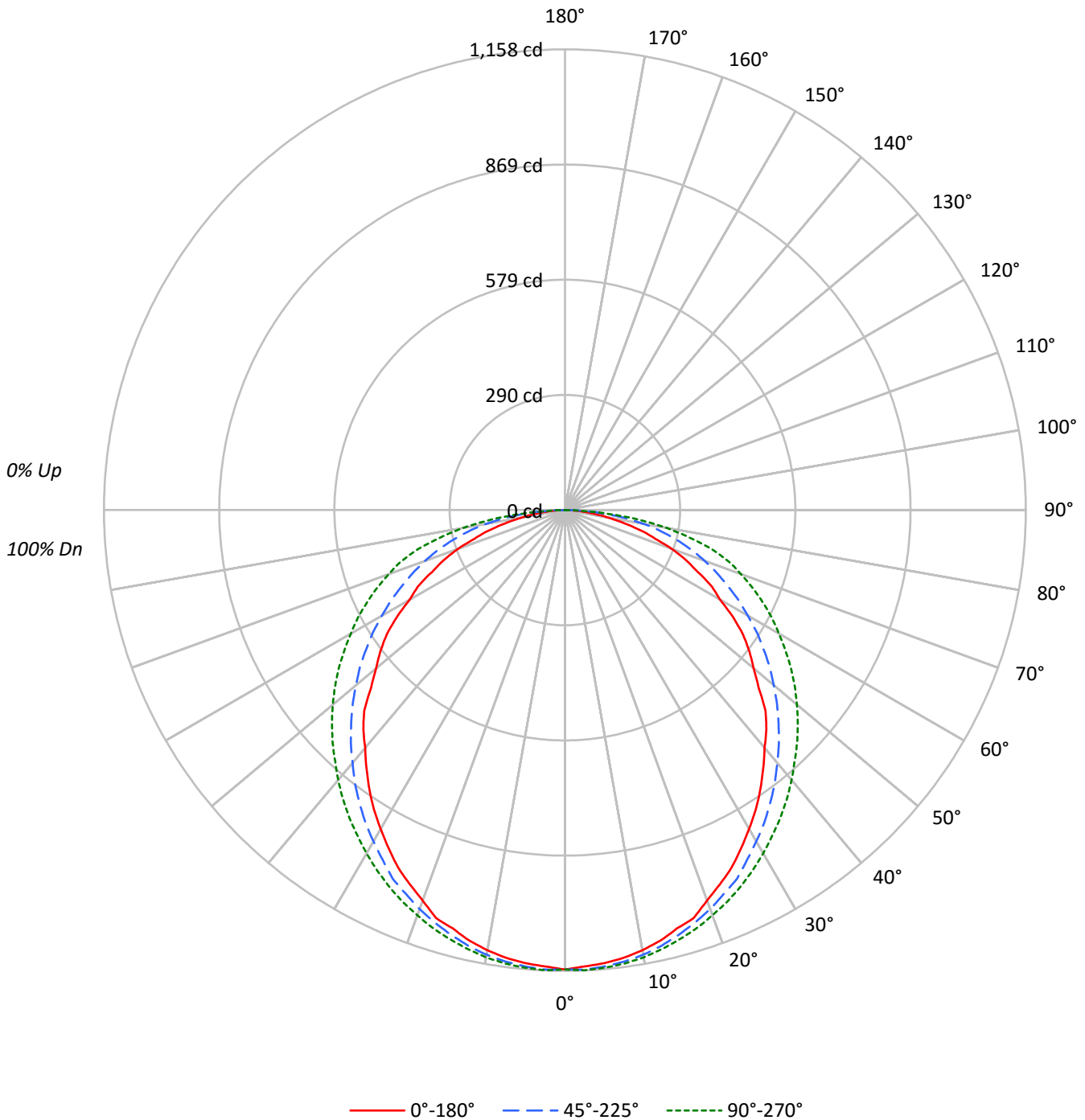
Input Watts (W): 33.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3107	3107	3107
5°	3088	3110	3119
10°	3069	3101	3119
15°	3033	3079	3111
20°	2990	3056	3103
25°	2944	3037	3100
30°	2876	2989	3096
35°	2813	2954	3100
40°	2742	2916	3112
45°	2714	2889	3140
50°	2592	2868	3185
55°	2565	2859	3253
60°	2420	2854	3342
65°	2349	2874	3492
70°	2255	2941	3706
75°	2054	3031	3989
80°	1760	3140	4032
85°	1423	3001	3458



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.2	3.2
10°-20°	311.6	9.1
20°-30°	469.0	13.6
30°-40°	562.9	16.4
40°-50°	588.4	17.1
50°-60°	548.3	15.9
60°-70°	449.7	13.1
70°-80°	303.0	8.8
80°-90°	98.7	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°	889.9	25.9
0°-40°	1452.9	42.2
0°-60°	2589.5	75.3
0°-90°	3441.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3441.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1154	1154	1154	1154	1154	
5°	1143	1146	1151	1153	1154	108
15°	1089	1095	1105	1115	1117	308
25°	991	998	1023	1038	1044	456
35°	856	868	899	930	944	535
45°	713	718	759	805	825	545
55°	547	557	609	667	693	485
65°	369	385	451	517	548	367
75°	198	219	292	357	384	208
85°	46	66	97	114	112	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1154.5	1154.5	1154.5	1154.5	1154.5
2.5°	1147.9	1151.2	1156.1	1157.8	1157.8
5°	1143.0	1146.3	1151.2	1152.8	1154.5
7.5°	1134.7	1138.0	1144.6	1147.9	1149.5
10°	1123.2	1126.5	1134.7	1139.7	1141.3
12.5°	1108.4	1111.7	1121.5	1128.1	1129.8
15°	1088.6	1095.2	1105.1	1115.0	1116.6
17.5°	1075.4	1073.8	1087.0	1098.5	1101.8
20°	1044.1	1052.4	1067.2	1080.4	1083.7
22.5°	1017.8	1024.4	1044.1	1059.0	1065.6
25°	991.4	998.0	1022.7	1037.6	1044.1
27.5°	958.5	968.4	991.4	1012.9	1021.1
30°	925.6	935.4	961.8	986.5	996.4
32.5°	892.6	904.2	932.2	958.5	970.0
35°	856.4	867.9	899.2	930.5	943.7
37.5°	818.5	833.3	866.3	900.9	915.7
40°	780.6	795.5	830.0	869.6	886.0
42.5°	749.3	755.9	795.5	838.3	854.7
45°	713.1	718.1	759.2	805.3	825.1
47.5°	660.4	678.5	723.0	774.0	793.8
50°	619.2	639.0	685.1	739.5	760.9
52.5°	584.7	597.8	648.9	703.2	727.9
55°	546.8	556.7	609.4	667.0	693.3
57.5°	500.7	518.8	571.5	630.8	657.1
60°	449.6	472.7	530.3	594.5	620.9
62.5°	416.7	429.8	492.4	556.7	586.3
65°	368.9	385.4	451.3	517.1	548.4
67.5°	329.4	345.9	413.4	479.3	510.5
70°	286.6	303.0	373.8	439.7	471.0
72.5°	237.2	260.2	334.3	400.2	433.1
75°	197.6	219.0	291.5	357.4	383.7
77.5°	153.2	181.2	248.7	303.0	322.8
80°	113.6	141.6	202.6	242.1	260.2
82.5°	77.4	105.4	151.5	181.2	191.0
85°	46.1	65.9	97.2	113.6	112.0
87.5°	21.4	28.0	39.5	39.5	37.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)