

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: P310188

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-RDP-CA125-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: P310188  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-50HE-UNV-L82765-RDP-CA125-W2A-U-4500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET  
Light Source: (336) 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**

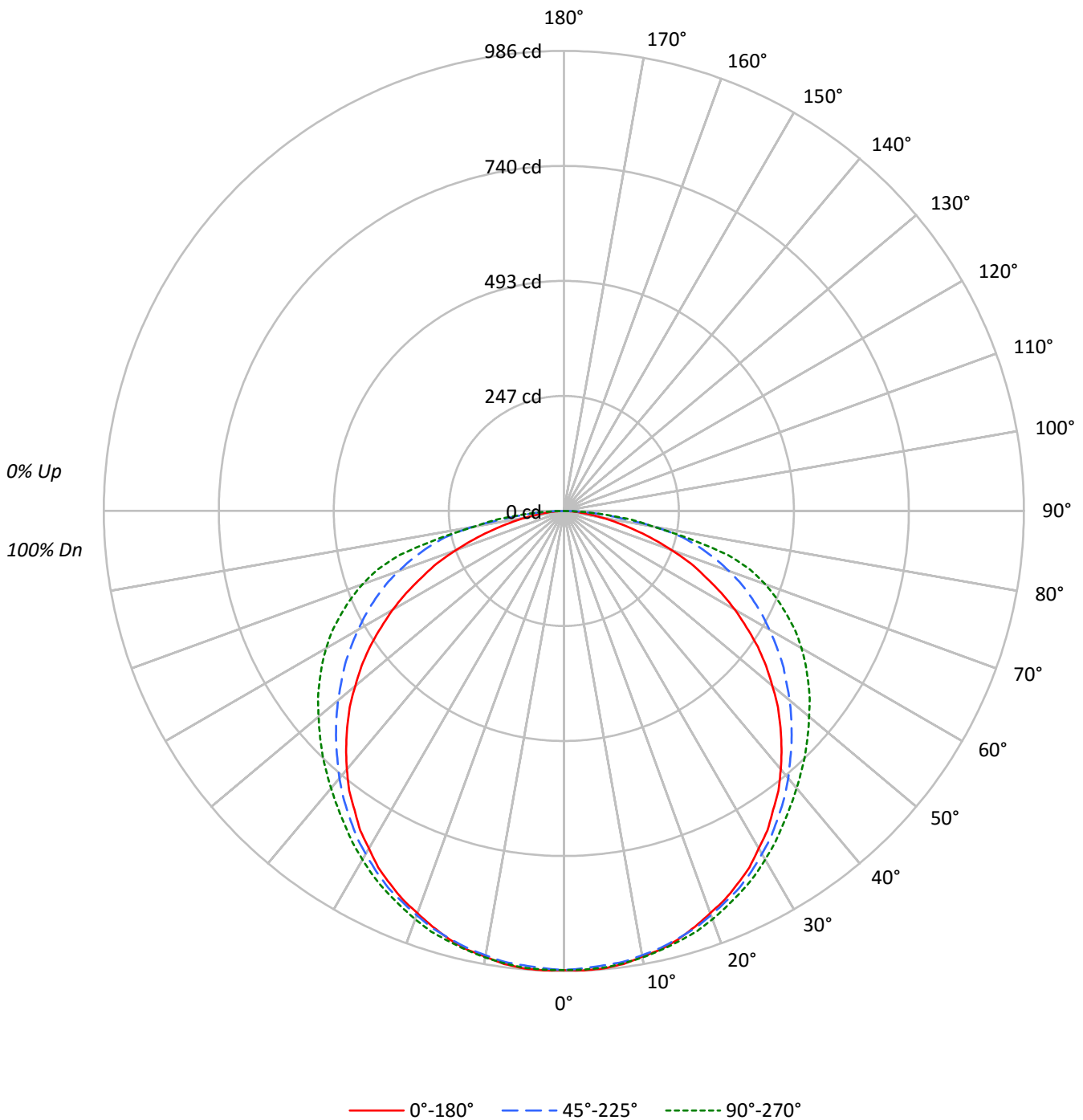
Lumens per Lamp: N/A  
Luminaire Lumens: 3129.0 lumens  
Efficiency: N/A  
Efficacy: 80.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 39.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1324	1324	1324
5°	1329	1321	1327
10°	1325	1321	1327
15°	1323	1321	1330
20°	1313	1320	1333
25°	1309	1323	1336
30°	1297	1319	1341
35°	1285	1315	1346
40°	1270	1314	1363
45°	1249	1314	1394
50°	1222	1322	1436
55°	1190	1343	1500
60°	1140	1370	1583
65°	1067	1418	1680
70°	971	1483	1807
75°	823	1565	1888
80°	649	1575	1527
85°	479	1198	1342



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.3	3.0
10°-20°	268.6	8.6
20°-30°	410.8	13.1
30°-40°	502.2	16.0
40°-50°	535.2	17.1
50°-60°	511.7	16.4
60°-70°	433.5	13.9
70°-80°	291.4	9.3
80°-90°	82.2	2.6
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°	772.8	24.7
0°-40°	1275.0	40.7
0°-60°	2321.9	74.2
0°-90°	3129.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3129.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	984	984	984	984	984	
5°	984	982	978	982	982	93
15°	950	950	948	956	954	268
25°	882	885	891	899	900	406
35°	782	788	801	816	820	490
45°	656	667	691	720	733	506
55°	508	526	573	618	639	452
65°	335	369	445	504	528	333
75°	158	216	301	352	363	170
85°	31	64	78	84	87	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	984.0	984.0	984.0	984.0	984.0
2.5°	985.5	985.5	980.9	984.0	984.0
5°	984.0	982.4	977.8	982.4	982.4
7.5°	979.3	977.8	974.7	979.3	977.8
10°	970.0	970.0	966.9	971.6	971.6
12.5°	962.3	960.7	959.1	965.4	963.8
15°	949.8	949.8	948.3	956.0	954.5
17.5°	934.3	935.9	937.4	943.6	945.2
20°	917.2	920.3	921.9	931.2	931.2
22.5°	901.7	903.3	906.4	915.7	915.7
25°	881.5	884.7	890.9	898.6	900.2
27.5°	861.4	862.9	870.7	881.5	883.1
30°	835.0	839.6	849.0	861.4	862.9
32.5°	811.7	816.4	827.2	839.6	842.7
35°	782.2	788.4	800.8	816.4	819.5
37.5°	755.8	760.5	776.0	793.1	797.7
40°	723.2	732.6	748.1	768.3	776.0
42.5°	690.6	700.0	718.6	745.0	754.3
45°	656.5	667.4	690.6	720.1	732.6
47.5°	622.4	634.8	661.2	695.3	709.3
50°	583.6	599.1	631.7	670.5	686.0
52.5°	546.3	564.9	600.6	644.1	664.3
55°	507.5	526.1	572.7	617.7	639.4
57.5°	464.1	488.9	540.1	591.3	614.6
60°	423.7	447.0	509.1	564.9	588.2
62.5°	380.2	411.3	478.0	537.0	560.3
65°	335.2	369.4	445.4	504.4	527.7
67.5°	294.9	332.1	412.8	471.8	495.1
70°	246.8	293.3	377.1	436.1	459.4
72.5°	201.8	253.0	339.9	397.3	419.0
75°	158.3	215.7	301.1	352.3	363.2
77.5°	118.0	178.5	260.7	282.5	274.7
80°	83.8	142.8	203.3	192.5	197.1
82.5°	54.3	108.6	125.7	142.8	147.4
85°	31.0	63.6	77.6	83.8	86.9
87.5°	14.0	23.3	31.0	31.0	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)