

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: P313782

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-RDP-CP187-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: P313782  
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: 24FCZ2-75HE-UNV-L83050-RDP-CP187-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET  
Light Source: (336) 4000K 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**

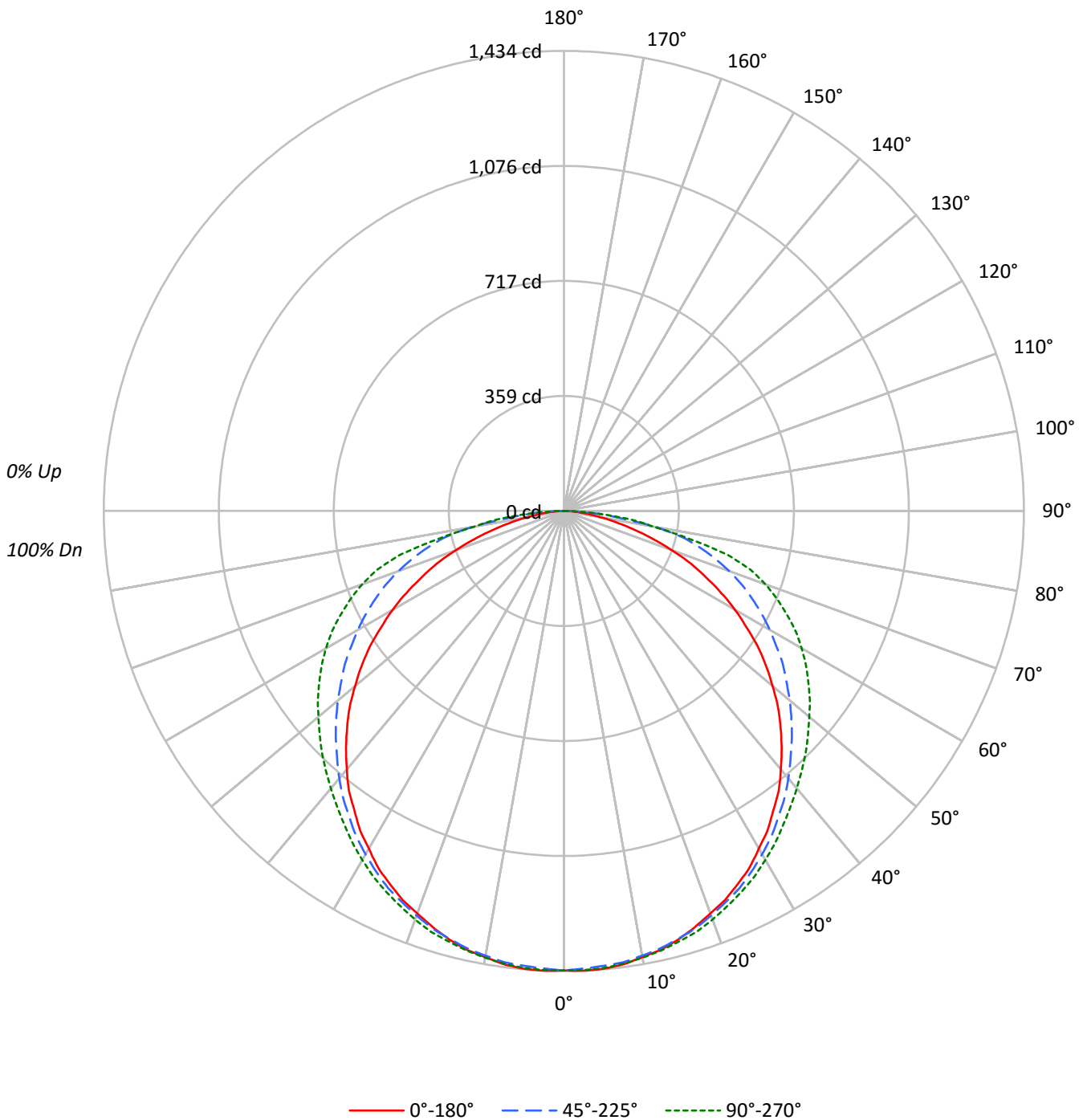
Lumens per Lamp: N/A  
Luminaire Lumens: 4554.0 lumens  
Efficiency: N/A  
Efficacy: 70.9 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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



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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	67	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°	1927	1927	1927
5°	1934	1922	1931
10°	1929	1923	1932
15°	1926	1922	1935
20°	1912	1921	1941
25°	1905	1925	1945
30°	1888	1920	1951
35°	1870	1915	1959
40°	1849	1912	1984
45°	1818	1913	2029
50°	1778	1924	2090
55°	1733	1955	2183
60°	1660	1994	2304
65°	1553	2064	2445
70°	1413	2159	2630
75°	1198	2278	2748
80°	945	2293	2223
85°	698	1743	1953



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	135.8	3.0
10°-20°	391.0	8.6
20°-30°	597.9	13.1
30°-40°	730.9	16.0
40°-50°	779.0	17.1
50°-60°	744.8	16.4
60°-70°	631.0	13.9
70°-80°	424.1	9.3
80°-90°	119.6	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°	1124.7	24.7
0°-40°	1855.6	40.7
0°-60°	3379.4	74.2
0°-90°	4554.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4554.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1432	1432	1432	1432	1432	
5°	1432	1430	1423	1430	1430	136
15°	1382	1382	1380	1391	1389	390
25°	1283	1288	1297	1308	1310	591
35°	1138	1148	1166	1188	1193	713
45°	956	971	1005	1048	1066	737
55°	739	766	834	899	931	658
65°	488	538	648	734	768	484
75°	230	314	438	513	529	247
85°	45	93	113	122	126	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1432.1	1432.1	1432.1	1432.1	1432.1
2.5°	1434.4	1434.4	1427.6	1432.1	1432.1
5°	1432.1	1429.8	1423.1	1429.8	1429.8
7.5°	1425.3	1423.1	1418.5	1425.3	1423.1
10°	1411.8	1411.8	1407.3	1414.0	1414.0
12.5°	1400.5	1398.2	1396.0	1405.0	1402.7
15°	1382.4	1382.4	1380.1	1391.4	1389.2
17.5°	1359.8	1362.1	1364.3	1373.4	1375.6
20°	1335.0	1339.5	1341.7	1355.3	1355.3
22.5°	1312.4	1314.6	1319.2	1332.7	1332.7
25°	1283.0	1287.5	1296.6	1307.9	1310.1
27.5°	1253.7	1255.9	1267.2	1283.0	1285.3
30°	1215.3	1222.0	1235.6	1253.7	1255.9
32.5°	1181.4	1188.1	1204.0	1222.0	1226.5
35°	1138.5	1147.5	1165.6	1188.1	1192.7
37.5°	1100.1	1106.8	1129.4	1154.3	1161.0
40°	1052.6	1066.2	1088.8	1118.1	1129.4
42.5°	1005.2	1018.7	1045.8	1084.2	1097.8
45°	955.5	971.3	1005.2	1048.1	1066.2
47.5°	905.8	923.9	962.3	1012.0	1032.3
50°	849.3	871.9	919.3	975.8	998.4
52.5°	795.1	822.2	874.2	937.4	966.8
55°	738.6	765.7	833.5	899.0	930.6
57.5°	675.4	711.5	786.1	860.6	894.5
60°	616.7	650.5	740.9	822.2	856.1
62.5°	553.4	598.6	695.7	781.6	815.4
65°	487.9	537.6	648.3	734.1	768.0
67.5°	429.2	483.4	600.9	686.7	720.6
70°	359.2	426.9	548.9	634.7	668.6
72.5°	293.6	368.2	494.7	578.3	609.9
75°	230.4	314.0	438.2	512.8	528.6
77.5°	171.7	259.8	379.5	411.1	399.8
80°	122.0	207.8	295.9	280.1	286.9
82.5°	79.1	158.1	183.0	207.8	214.6
85°	45.2	92.6	112.9	122.0	126.5
87.5°	20.3	33.9	45.2	45.2	42.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)