

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: P310475

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-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: P310475
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-L82765-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: 4329.0 lumens
Efficiency: N/A
Efficacy: 68.2 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

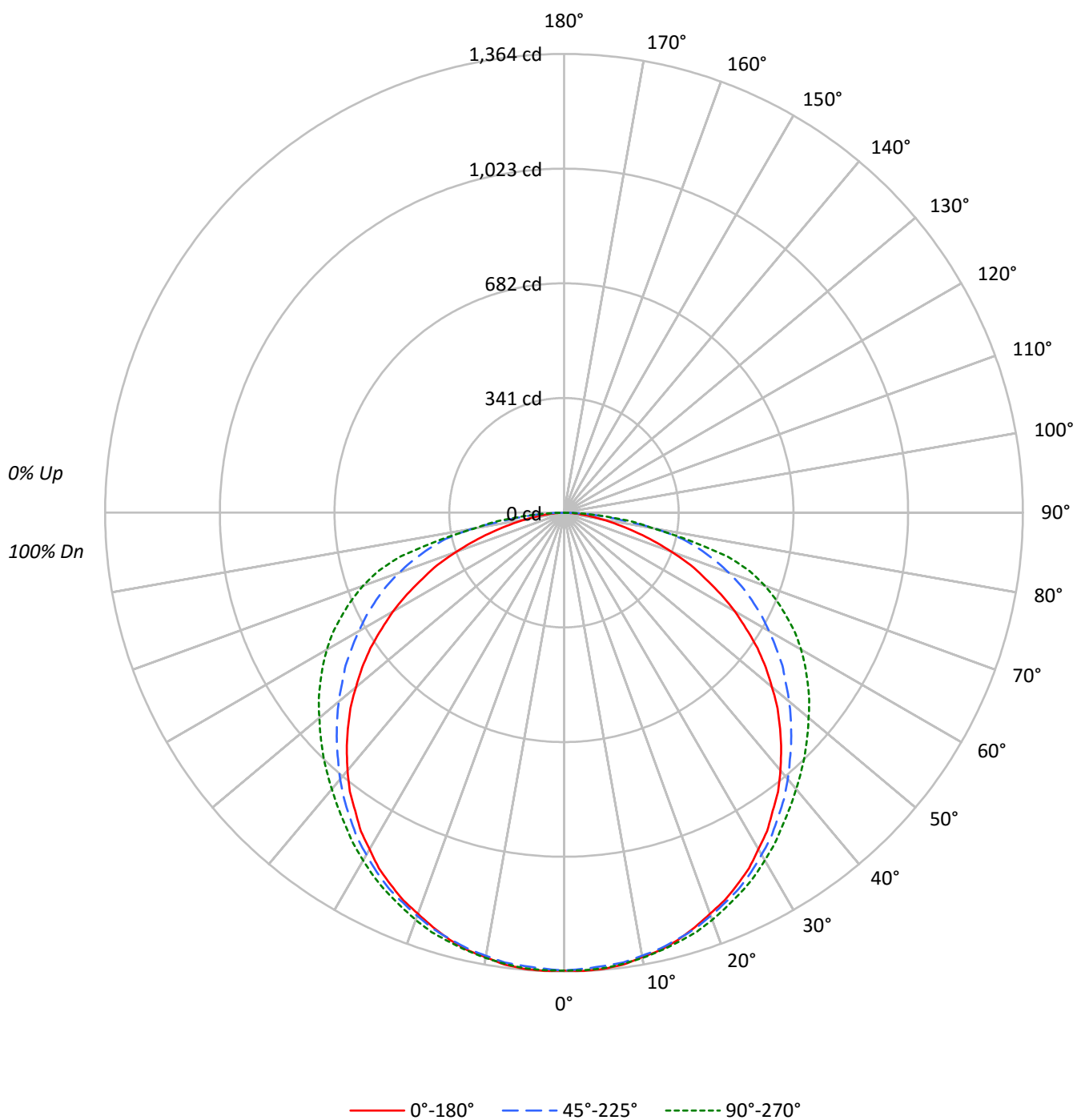
Input Watts (W): 63.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1832	1832	1832
5°	1839	1827	1836
10°	1834	1828	1837
15°	1830	1828	1839
20°	1817	1826	1845
25°	1811	1830	1849
30°	1795	1825	1855
35°	1778	1820	1862
40°	1757	1818	1886
45°	1728	1818	1928
50°	1690	1829	1987
55°	1647	1859	2075
60°	1577	1895	2190
65°	1477	1962	2324
70°	1343	2053	2500
75°	1138	2166	2612
80°	899	2180	2113
85°	662	1658	1856



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.1	3.0
10°-20°	371.7	8.6
20°-30°	568.3	13.1
30°-40°	694.8	16.0
40°-50°	740.5	17.1
50°-60°	708.0	16.4
60°-70°	599.8	13.9
70°-80°	403.1	9.3
80°-90°	113.7	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°	1069.1	24.7
0°-40°	1763.9	40.7
0°-60°	3212.4	74.2
0°-90°	4329.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4329.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1361	1361	1361	1361	1361	
5°	1361	1359	1353	1359	1359	129
15°	1314	1314	1312	1323	1320	371
25°	1220	1224	1232	1243	1245	562
35°	1082	1091	1108	1129	1134	678
45°	908	923	956	996	1014	701
55°	702	728	792	855	885	625
65°	464	511	616	698	730	460
75°	219	298	417	487	502	235
85°	43	88	107	116	120	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1361.3	1361.3	1361.3	1361.3	1361.3
2.5°	1363.5	1363.5	1357.1	1361.3	1361.3
5°	1361.3	1359.2	1352.8	1359.2	1359.2
7.5°	1354.9	1352.8	1348.5	1354.9	1352.8
10°	1342.0	1342.0	1337.7	1344.2	1344.2
12.5°	1331.3	1329.1	1327.0	1335.6	1333.4
15°	1314.1	1314.1	1312.0	1322.7	1320.5
17.5°	1292.6	1294.8	1296.9	1305.5	1307.7
20°	1269.0	1273.3	1275.5	1288.3	1288.3
22.5°	1247.5	1249.7	1254.0	1266.9	1266.9
25°	1219.6	1223.9	1232.5	1243.2	1245.4
27.5°	1191.7	1193.9	1204.6	1219.6	1221.8
30°	1155.2	1161.7	1174.5	1191.7	1193.9
32.5°	1123.0	1129.4	1144.5	1161.7	1165.9
35°	1082.2	1090.8	1108.0	1129.4	1133.7
37.5°	1045.7	1052.1	1073.6	1097.2	1103.7
40°	1000.6	1013.5	1035.0	1062.9	1073.6
42.5°	955.5	968.4	994.2	1030.7	1043.6
45°	908.3	923.3	955.5	996.3	1013.5
47.5°	861.0	878.2	914.7	962.0	981.3
50°	807.4	828.8	873.9	927.6	949.1
52.5°	755.8	781.6	831.0	891.1	919.0
55°	702.1	727.9	792.3	854.6	884.7
57.5°	642.0	676.4	747.2	818.1	850.3
60°	586.2	618.4	704.3	781.6	813.8
62.5°	526.1	569.0	661.3	742.9	775.2
65°	463.8	511.0	616.3	697.9	730.1
67.5°	408.0	459.5	571.2	652.8	685.0
70°	341.4	405.8	521.8	603.4	635.6
72.5°	279.1	350.0	470.2	549.7	579.8
75°	219.0	298.5	416.6	487.4	502.5
77.5°	163.2	246.9	360.7	390.8	380.1
80°	116.0	197.5	281.3	266.3	272.7
82.5°	75.2	150.3	173.9	197.5	204.0
85°	42.9	88.0	107.4	116.0	120.2
87.5°	19.3	32.2	42.9	42.9	40.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)