

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: P314146

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-CA125-W2A-U-3500K**

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: P314146
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
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-CA125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 3500K 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: 6867.0 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

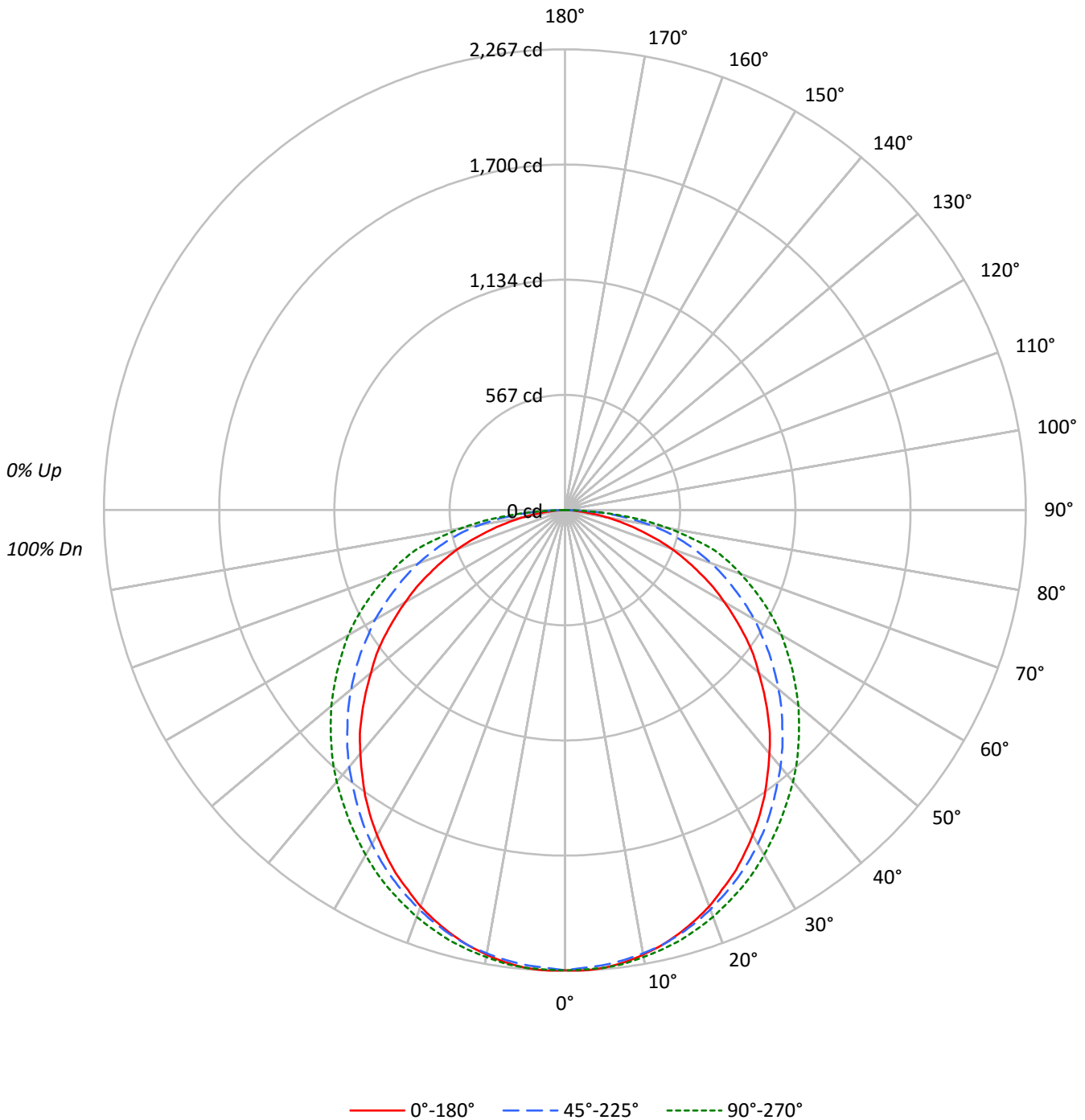
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3047	3047	3047
5°	3053	3034	3053
10°	3035	3026	3051
15°	3009	3015	3053
20°	2972	2995	3050
25°	2926	2973	3048
30°	2871	2949	3044
35°	2814	2919	3046
40°	2749	2897	3065
45°	2684	2879	3091
50°	2604	2871	3138
55°	2539	2875	3201
60°	2440	2900	3311
65°	2328	2931	3431
70°	2205	3020	3621
75°	1966	3150	3956
80°	1677	3336	4042
85°	1196	3307	3869



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.3	3.1
10°-20°	612.8	8.9
20°-30°	925.6	13.5
30°-40°	1115.6	16.2
40°-50°	1171.2	17.1
50°-60°	1095.7	16.0
60°-70°	904.9	13.2
70°-80°	616.6	9.0
80°-90°	210.3	3.1
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°	1752.8	25.5
0°-40°	2868.4	41.8
0°-60°	5135.3	74.8
0°-90°	6867.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6867.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2265	2265	2265	2265	2265	
5°	2260	2258	2246	2260	2260	214
15°	2160	2162	2164	2187	2192	609
25°	1971	1980	2003	2041	2053	907
35°	1713	1732	1777	1836	1855	1071
45°	1410	1440	1513	1595	1624	1088
55°	1082	1126	1226	1326	1365	966
65°	731	793	920	1037	1078	725
75°	378	465	606	720	761	403
85°	78	153	214	242	251	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2264.7	2264.7	2264.7	2264.7	2264.7
2.5°	2267.0	2264.7	2253.3	2264.7	2262.4
5°	2260.1	2257.8	2246.5	2260.1	2260.1
7.5°	2244.2	2244.2	2232.8	2248.7	2251.0
10°	2221.4	2221.4	2214.6	2232.8	2232.8
12.5°	2194.0	2194.0	2194.0	2212.3	2214.6
15°	2159.9	2162.2	2164.4	2187.2	2191.8
17.5°	2118.9	2123.4	2130.3	2157.6	2162.2
20°	2075.6	2080.1	2091.5	2123.4	2130.3
22.5°	2020.9	2032.3	2048.2	2084.7	2091.5
25°	1970.8	1979.9	2002.7	2041.4	2052.8
27.5°	1909.3	1922.9	1952.5	1993.6	2009.5
30°	1847.7	1861.4	1897.9	1945.7	1959.4
32.5°	1781.7	1802.2	1840.9	1891.0	1907.0
35°	1713.3	1731.5	1777.1	1836.3	1854.6
37.5°	1638.1	1663.2	1713.3	1777.1	1799.9
40°	1565.2	1592.6	1649.5	1717.9	1745.2
42.5°	1492.3	1519.7	1583.5	1660.9	1688.3
45°	1410.3	1439.9	1512.8	1594.8	1624.5
47.5°	1328.3	1364.7	1444.5	1531.0	1562.9
50°	1244.0	1285.0	1371.6	1462.7	1499.2
52.5°	1168.8	1207.5	1298.7	1396.6	1430.8
55°	1082.2	1125.5	1225.8	1326.0	1364.7
57.5°	993.4	1041.2	1148.3	1257.6	1296.4
60°	906.8	959.2	1077.7	1187.0	1230.3
62.5°	822.5	874.9	997.9	1111.8	1155.1
65°	731.3	792.9	920.5	1036.6	1077.7
67.5°	644.8	710.8	845.3	959.2	1000.2
70°	560.5	624.3	767.8	879.4	920.5
72.5°	469.3	542.2	685.8	802.0	845.3
75°	378.2	464.8	606.0	720.0	761.0
77.5°	293.9	382.8	524.0	617.4	637.9
80°	216.4	307.6	430.6	496.7	521.7
82.5°	139.0	230.1	328.1	375.9	396.4
85°	77.5	152.6	214.2	241.5	250.6
87.5°	31.9	66.1	86.6	98.0	98.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)