

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: P313773

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-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: P313773
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-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: 4896.0 lumens
Efficiency: N/A
Efficacy: 74.3 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

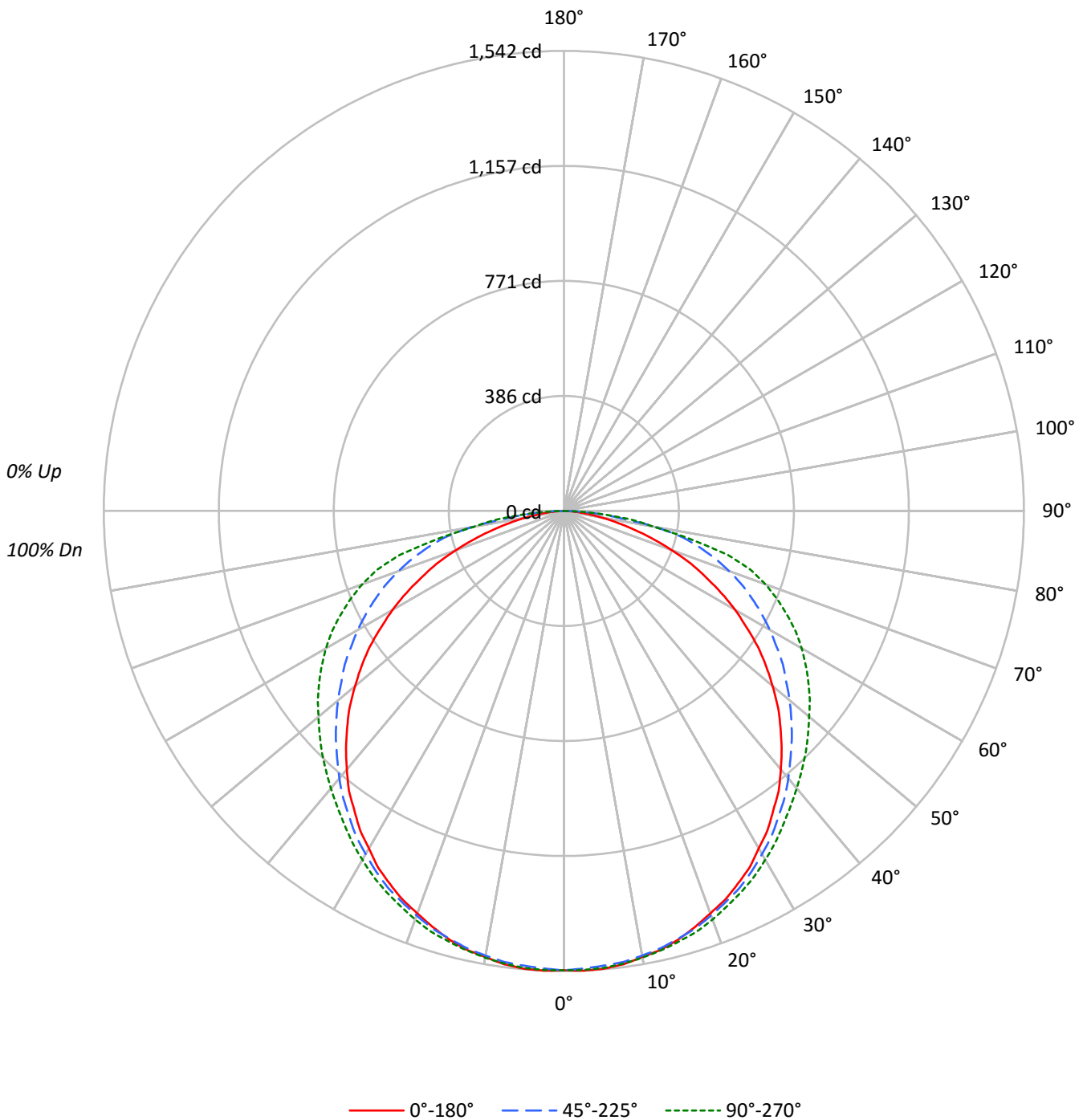
Input Watts (W): 65.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2072	2072	2072
5°	2080	2066	2076
10°	2074	2067	2077
15°	2070	2067	2080
20°	2055	2065	2086
25°	2048	2069	2091
30°	2030	2064	2098
35°	2010	2058	2106
40°	1988	2056	2133
45°	1955	2056	2181
50°	1911	2069	2247
55°	1863	2102	2347
60°	1784	2143	2477
65°	1670	2219	2629
70°	1519	2321	2828
75°	1288	2449	2954
80°	1016	2465	2390
85°	750	1874	2100



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.1	3.0
10°-20°	420.3	8.6
20°-30°	642.8	13.1
30°-40°	785.8	16.0
40°-50°	837.5	17.1
50°-60°	800.7	16.4
60°-70°	678.3	13.9
70°-80°	455.9	9.3
80°-90°	128.6	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°	1209.2	24.7
0°-40°	1994.9	40.7
0°-60°	3633.2	74.2
0°-90°	4896.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4896.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1540	1540	1540	1540	1540	
5°	1540	1537	1530	1537	1537	146
15°	1486	1486	1484	1496	1494	419
25°	1379	1384	1394	1406	1408	636
35°	1224	1234	1253	1277	1282	767
45°	1027	1044	1081	1127	1146	792
55°	794	823	896	966	1000	707
65°	525	578	697	789	826	521
75°	248	338	471	551	568	265
85°	49	100	121	131	136	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1539.7	1539.7	1539.7	1539.7	1539.7
2.5°	1542.1	1542.1	1534.8	1539.7	1539.7
5°	1539.7	1537.2	1529.9	1537.2	1537.2
7.5°	1532.4	1529.9	1525.1	1532.4	1529.9
10°	1517.8	1517.8	1512.9	1520.2	1520.2
12.5°	1505.7	1503.2	1500.8	1510.5	1508.1
15°	1486.2	1486.2	1483.8	1495.9	1493.5
17.5°	1461.9	1464.4	1466.8	1476.5	1478.9
20°	1435.2	1440.1	1442.5	1457.1	1457.1
22.5°	1410.9	1413.4	1418.2	1432.8	1432.8
25°	1379.4	1384.2	1393.9	1406.1	1408.5
27.5°	1347.8	1350.2	1362.4	1379.4	1381.8
30°	1306.5	1313.8	1328.4	1347.8	1350.2
32.5°	1270.1	1277.4	1294.4	1313.8	1318.7
35°	1224.0	1233.7	1253.1	1277.4	1282.2
37.5°	1182.7	1190.0	1214.2	1240.9	1248.2
40°	1131.7	1146.2	1170.5	1202.1	1214.2
42.5°	1080.7	1095.2	1124.4	1165.7	1180.2
45°	1027.2	1044.2	1080.7	1126.8	1146.2
47.5°	973.8	993.2	1034.5	1088.0	1109.8
50°	913.1	937.4	988.4	1049.1	1073.4
52.5°	854.8	884.0	939.8	1007.8	1039.4
55°	794.1	823.3	896.1	966.5	1000.5
57.5°	726.1	765.0	845.1	925.2	961.7
60°	663.0	699.4	796.5	884.0	920.4
62.5°	595.0	643.5	748.0	840.3	876.7
65°	524.6	578.0	697.0	789.3	825.7
67.5°	461.4	519.7	646.0	738.3	774.7
70°	386.1	459.0	590.1	682.4	718.8
72.5°	315.7	395.8	531.8	621.7	655.7
75°	247.7	337.6	471.1	551.3	568.3
77.5°	184.6	279.3	408.0	442.0	429.8
80°	131.1	223.4	318.1	301.1	308.4
82.5°	85.0	170.0	196.7	223.4	230.7
85°	48.6	99.6	121.4	131.1	136.0
87.5°	21.9	36.4	48.6	48.6	46.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)