

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: P184390

Luminaire Tested: **ENW/ENC-24-4-LD1-54-40-CP187-UNV-EDC1**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P184390  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ENW/ENC-24-4-LD1-54-40-CP187-UNV-EDC1  
Description: FAIL-SAFE 2X4 ENCOUNTER W/ 0.187" THICK CLEAR POLY LENS  
Light Source: 4000K LEDS  
Ballast/Driver: -

**Summary**

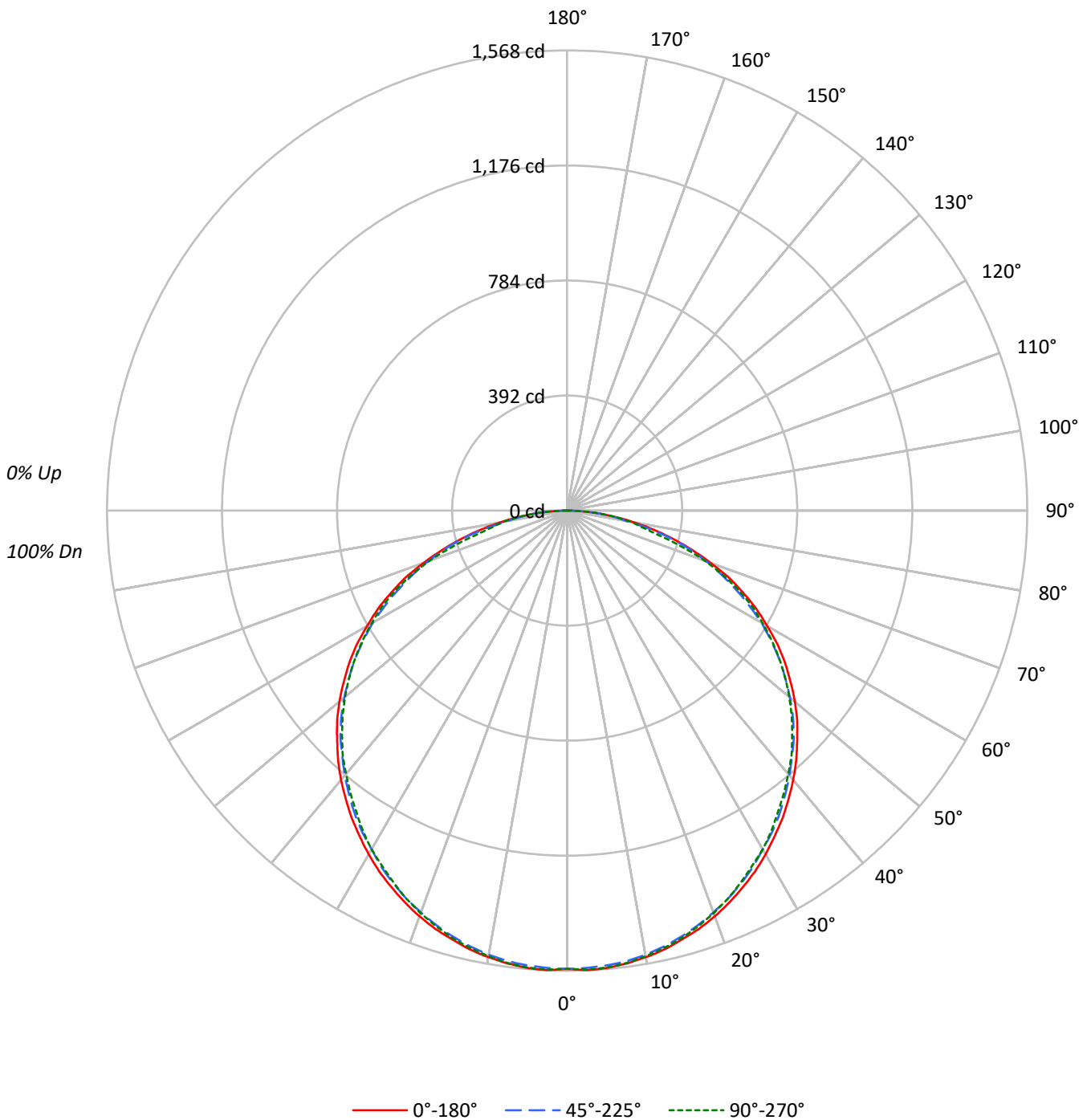
Lumens per Lamp: N/A  
Luminaire Lumens: 4772.0 lumens  
Efficiency: N/A  
Efficacy: 87.4 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.27 / 1.41  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 4' x H: 0.1')  
CIE Type: Direct

Input Watts (W): 54.6  
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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	62	73	67	61	71	65	60	68	63	59	57
4	81	69	60	53	79	68	59	53	65	58	52	63	56	51	60	55	50	48
5	75	61	52	45	73	60	52	45	58	50	45	56	49	44	54	48	44	41
6	69	55	46	39	67	54	46	39	52	45	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	31	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	2101	2101	2101
5°	2108	2091	2101
10°	2102	2080	2088
15°	2094	2064	2073
20°	2088	2047	2052
25°	2078	2031	2030
30°	2071	2009	2013
35°	2065	1998	1988
40°	2062	1981	1976
45°	2058	1974	1966
50°	2060	1951	1951
55°	2054	1924	1934
60°	2030	1881	1907
65°	1998	1810	1860
70°	1912	1728	1726
75°	1782	1594	1408
80°	1569	1225	1344
85°	1215	980	1019



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	148.1	3.1
10°-20°	424.8	8.9
20°-30°	646.7	13.6
30°-40°	790.2	16.6
40°-50°	843.2	17.7
50°-60°	792.7	16.6
60°-70°	635.3	13.3
70°-80°	376.5	7.9
80°-90°	114.5	2.4
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°	1219.6	25.6
0°-40°	2009.8	42.1
0°-60°	3645.7	76.4
0°-90°	4772.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4772.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1562	1562	1562	1562	1562	
5°	1564	1560	1556	1554	1562	149
15°	1513	1506	1503	1500	1508	428
25°	1416	1408	1402	1393	1399	653
35°	1279	1272	1262	1250	1253	801
45°	1108	1103	1092	1079	1085	856
55°	907	896	882	876	883	810
65°	661	647	633	639	647	653
75°	375	368	367	332	321	396
85°	101	97	102	102	104	114
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1561.5	1561.5	1561.5	1561.5	1561.5
2.5°	1567.5	1560.6	1559.8	1557.3	1565.8
5°	1564.1	1559.8	1555.6	1553.9	1562.4
7.5°	1556.4	1552.1	1548.8	1546.3	1554.8
10°	1545.4	1537.8	1536.9	1535.1	1542.0
12.5°	1531.8	1524.1	1521.6	1519.0	1526.6
15°	1513.1	1506.3	1502.9	1499.5	1508.0
17.5°	1494.4	1485.0	1481.6	1478.3	1485.0
20°	1471.4	1462.1	1457.0	1451.9	1459.5
22.5°	1445.1	1435.8	1431.5	1423.0	1431.5
25°	1416.1	1407.6	1401.8	1393.3	1399.1
27.5°	1386.4	1376.3	1370.3	1359.3	1365.1
30°	1352.4	1347.3	1332.8	1324.3	1332.8
32.5°	1315.8	1307.3	1299.8	1289.5	1294.6
35°	1279.3	1271.6	1261.5	1249.6	1253.0
37.5°	1239.3	1232.6	1220.6	1209.6	1213.0
40°	1198.6	1190.9	1178.1	1168.0	1172.2
42.5°	1155.2	1147.6	1134.8	1126.3	1131.4
45°	1108.5	1103.3	1092.3	1078.7	1084.6
47.5°	1063.4	1058.3	1043.8	1032.8	1037.9
50°	1013.3	1007.3	991.1	983.5	987.8
52.5°	959.7	950.3	936.8	931.6	936.8
55°	907.0	896.0	882.3	876.4	883.2
57.5°	850.9	839.8	823.7	819.5	828.0
60°	787.1	778.6	763.3	761.6	770.1
62.5°	727.6	714.8	698.8	702.1	713.2
65°	661.3	646.8	633.3	639.2	646.8
67.5°	595.8	578.0	568.7	573.8	574.6
70°	519.3	510.0	503.2	499.8	499.0
72.5°	446.3	438.6	438.6	415.7	409.7
75°	374.8	368.1	367.2	332.3	321.3
77.5°	303.5	299.2	284.8	256.7	256.7
80°	231.2	236.3	205.7	215.9	222.7
82.5°	163.2	167.5	159.0	160.7	163.2
85°	101.2	96.9	102.0	102.0	103.7
87.5°	40.8	45.0	46.8	49.3	51.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)