

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: P709026

Luminaire Tested: **24APR-67-160L930-UNV**

Issue Date: 09/12/2023



Test Information

Test Method: LM-79-08
Report Number: P709026
Test Lab: INNOVATION CENTER(G2)
Issue Date: 09/12/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-67-160L930-UNV
Description: ArcMed Patient Recessed 2x4 Fixture Ambient and Exam Light
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

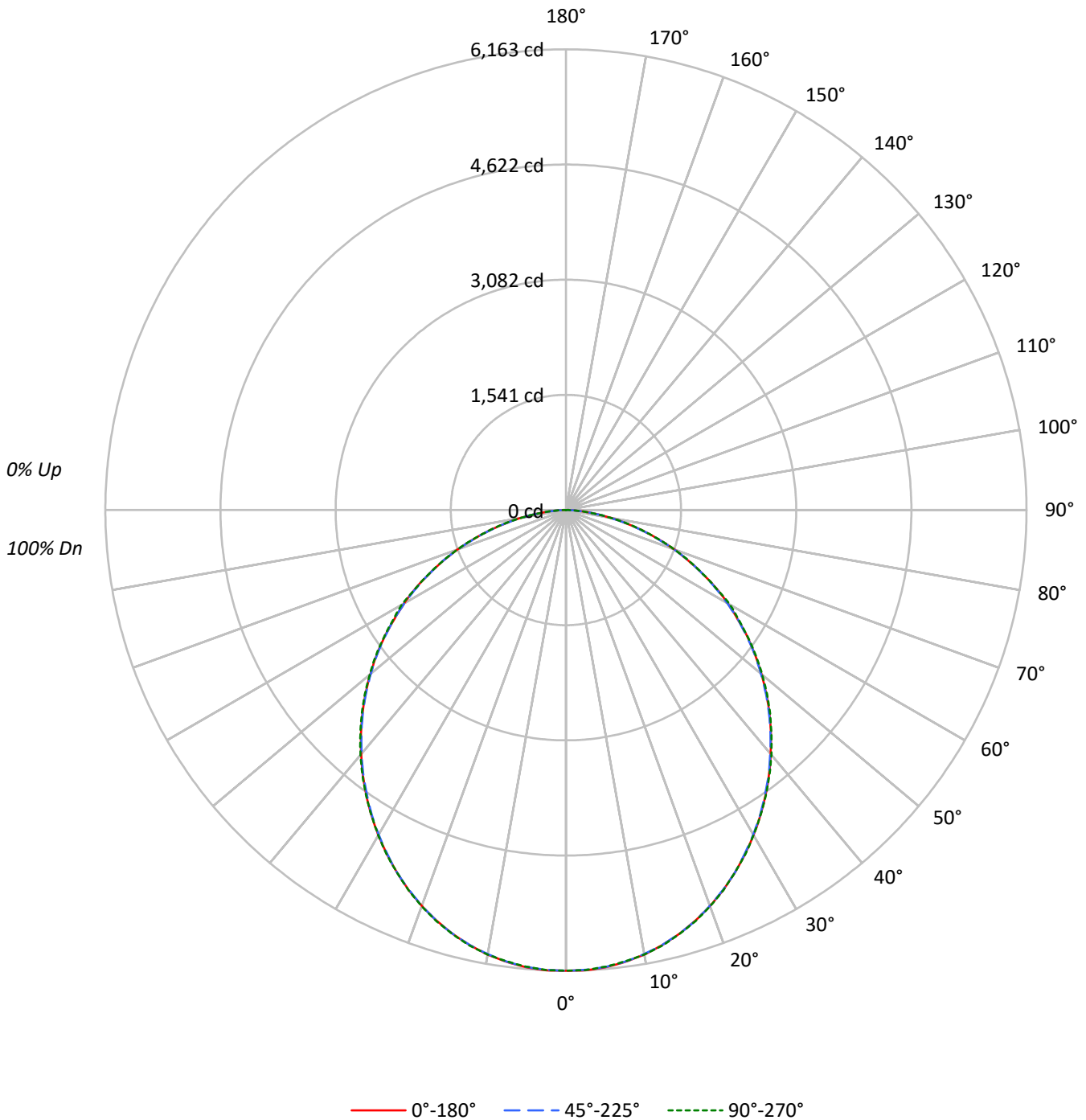
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16632.1 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 181.5
Input Voltage (V): 120
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				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	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100
1	109	104	100	96	106	102	98	94	98	94	92	94	91	89	90	88	86	86	86	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	72	72	72	70
3	90	80	72	65	88	78	71	65	75	69	63	73	67	62	70	65	61	61	61	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	53	53	53	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	46	46	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	40	40	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	36	36	36	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	32	32	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	29	29	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	26	26	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8292	8292	8292
5°	8293	8285	8280
10°	8250	8242	8249
15°	8172	8172	8181
20°	8071	8066	8078
25°	7945	7941	7941
30°	7801	7789	7802
35°	7649	7628	7659
40°	7487	7472	7512
45°	7327	7312	7352
50°	7152	7133	7179
55°	6956	6939	6980
60°	6727	6711	6829
65°	6421	6422	6439
70°	6069	6036	6075
75°	5536	5493	5530
80°	4779	4720	4751
85°	3728	3691	3682



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	582.5	3.5
10°-20°	1654.3	9.9
20°-30°	2463.6	14.8
30°-40°	2910.6	17.5
40°-50°	2969.3	17.9
50°-60°	2649.4	15.9
60°-70°	1997.4	12.0
70°-80°	1119.9	6.7
80°-90°	285.0	1.7
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°	4700.4	28.3
0°-40°	7611.0	45.8
0°-60°	13229.8	79.5
0°-90°	16632.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	16632.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6163	6163	6163	6163	6163	
5°	6140	6137	6134	6135	6131	583
15°	5867	5863	5867	5871	5873	1654
25°	5352	5345	5349	5354	5349	2465
35°	4657	4650	4644	4658	4663	2913
45°	3850	3848	3843	3854	3864	2970
55°	2966	2959	2958	2967	2976	2649
65°	2017	2007	2017	2023	2023	2001
75°	1065	1046	1057	1051	1064	1127
85°	242	233	239	238	238	289
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6163.1	6163.1	6163.1	6163.1	6163.1
2.5°	6163.1	6160.2	6157.8	6157.2	6158.4
5°	6140.0	6137.1	6134.1	6135.3	6130.6
7.5°	6095.7	6096.2	6093.9	6094.5	6089.1
10°	6038.2	6035.3	6032.9	6038.2	6037.6
12.5°	5960.7	5955.4	5957.7	5966.0	5966.6
15°	5866.6	5863.0	5866.6	5870.7	5873.1
17.5°	5759.4	5756.5	5760.6	5761.2	5765.9
20°	5636.9	5633.4	5633.4	5639.3	5641.6
22.5°	5501.4	5496.0	5497.2	5501.4	5504.3
25°	5351.6	5345.1	5349.2	5354.0	5349.2
27.5°	5190.0	5186.5	5182.3	5188.2	5195.9
30°	5021.3	5014.2	5013.6	5017.8	5021.9
32.5°	4843.1	4834.9	4834.9	4840.2	4843.7
35°	4656.7	4650.2	4644.3	4657.9	4662.6
37.5°	4464.3	4456.6	4456.0	4464.3	4472.0
40°	4262.5	4255.9	4254.2	4268.4	4276.7
42.5°	4058.8	4054.7	4050.5	4064.8	4071.3
45°	3850.5	3848.1	3842.8	3854.0	3863.5
47.5°	3636.2	3628.5	3626.7	3639.8	3649.2
50°	3416.6	3413.6	3407.7	3419.6	3429.6
52.5°	3194.0	3190.5	3186.3	3197.0	3207.6
55°	2965.5	2959.0	2957.9	2966.7	2975.6
57.5°	2727.6	2722.3	2730.6	2738.8	2745.9
60°	2499.7	2487.3	2493.8	2503.3	2537.6
62.5°	2270.6	2248.7	2253.5	2279.5	2264.7
65°	2016.7	2006.6	2017.3	2023.2	2022.6
67.5°	1778.7	1766.9	1782.9	1778.1	1785.2
70°	1542.6	1521.8	1534.3	1536.0	1544.3
72.5°	1298.7	1280.9	1291.6	1296.9	1302.2
75°	1064.9	1046.5	1056.6	1050.7	1063.7
77.5°	832.2	821.0	827.5	831.7	841.7
80°	616.8	604.4	609.1	609.7	613.2
82.5°	417.9	408.4	409.6	420.3	416.1
85°	241.5	232.6	239.1	238.5	238.5
87.5°	94.1	87.0	93.5	92.9	91.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)