

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: METALUX

Report Number: P474611

Luminaire Tested: **24CZ2-30-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474611
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30-SQR-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

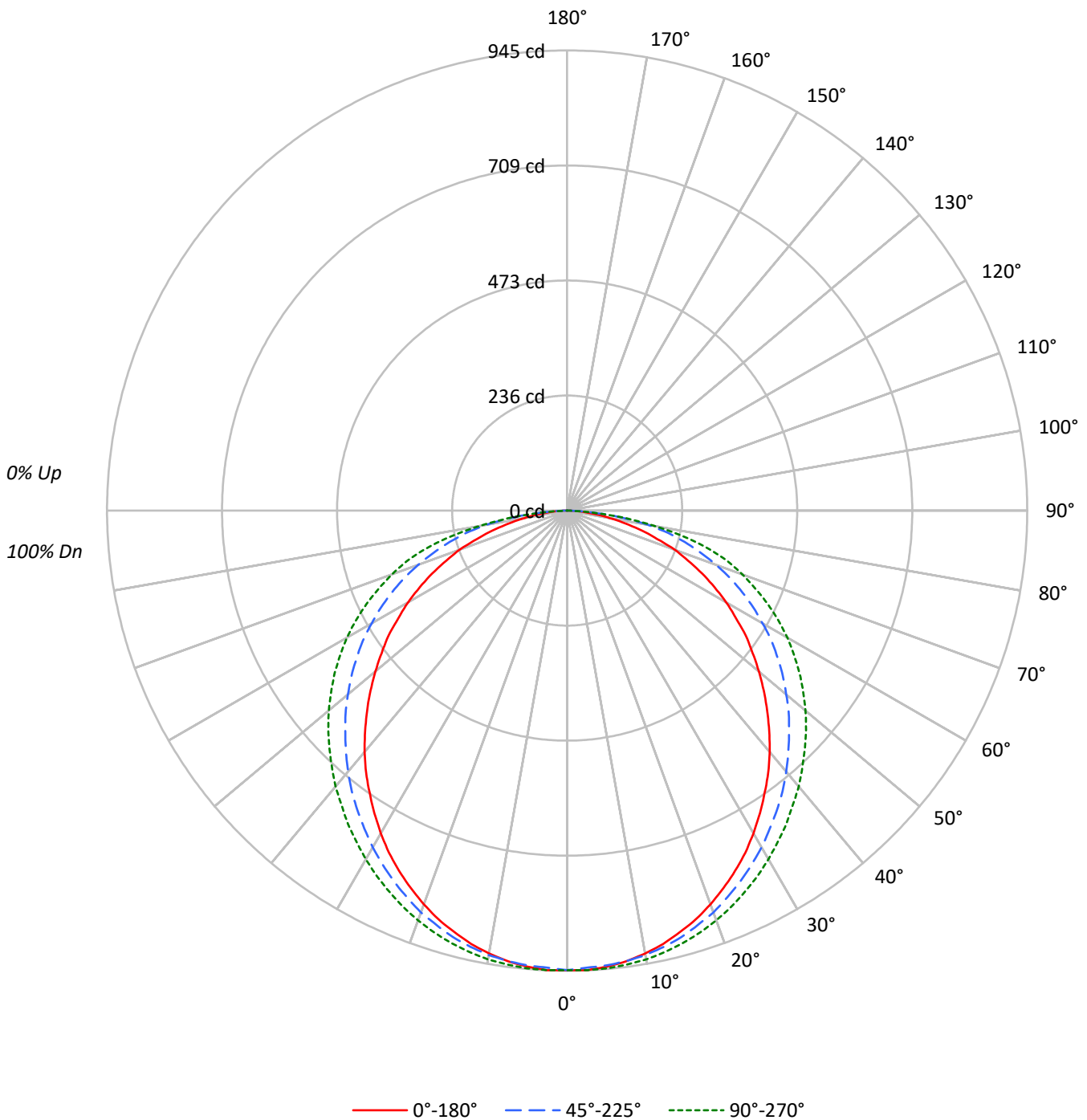
Lumens per Lamp: N/A
Luminaire Lumens: 2873.0 lumens
Efficiency: N/A
Efficacy: 121.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 23.6
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	
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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	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°	2539	2539	2539
5°	2539	2532	2549
10°	2523	2532	2557
15°	2496	2527	2561
20°	2464	2514	2564
25°	2424	2497	2565
30°	2377	2481	2568
35°	2324	2467	2578
40°	2273	2459	2599
45°	2211	2452	2627
50°	2152	2460	2675
55°	2102	2476	2735
60°	2031	2495	2811
65°	1949	2525	2897
70°	1849	2560	3012
75°	1656	2596	3112
80°	1395	2603	2824
85°	1034	1970	1856



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.4	3.1
10°-20°	256.3	8.9
20°-30°	388.0	13.5
30°-40°	469.3	16.3
40°-50°	495.4	17.2
50°-60°	467.2	16.3
60°-70°	385.2	13.4
70°-80°	252.7	8.8
80°-90°	69.5	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°	733.7	25.5
0°-40°	1203.0	41.9
0°-60°	2165.6	75.4
0°-90°	2873.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2873.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	944	944	944	944	944	
5°	940	940	937	944	944	89
15°	896	901	907	918	919	253
25°	816	827	841	858	864	376
35°	707	726	751	777	785	443
45°	581	607	644	679	690	448
55°	448	480	528	567	583	399
65°	306	343	397	439	455	302
75°	159	200	250	289	299	168
85°	34	58	64	62	60	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	943.7	943.7	943.7	943.7	943.7
2.5°	944.6	943.7	939.5	945.1	944.6
5°	940.0	940.0	937.3	943.7	943.7
7.5°	933.6	934.0	933.1	940.5	940.5
10°	923.5	925.3	926.7	935.0	935.9
12.5°	911.5	914.8	917.5	927.6	928.5
15°	895.9	901.0	907.0	917.5	919.4
17.5°	879.9	885.8	892.3	906.0	908.3
20°	860.6	867.5	878.0	891.8	895.5
22.5°	839.0	848.7	859.7	876.2	880.8
25°	816.5	826.6	840.9	858.3	863.8
27.5°	792.2	804.1	820.2	840.4	846.4
30°	765.1	778.9	798.6	820.2	826.6
32.5°	736.7	752.7	774.8	798.6	806.0
35°	707.3	725.7	750.9	776.6	784.9
37.5°	678.4	696.7	726.6	753.7	761.5
40°	647.2	667.4	700.0	728.9	739.9
42.5°	614.1	638.0	672.4	704.5	715.1
45°	581.1	607.2	644.4	678.8	690.3
47.5°	547.6	576.5	617.3	652.2	665.5
50°	514.1	544.8	587.5	625.1	638.9
52.5°	480.1	512.2	558.6	598.5	610.9
55°	448.0	479.6	527.8	567.3	582.9
57.5°	410.8	446.6	497.5	537.5	552.6
60°	377.3	412.2	463.6	505.8	522.3
62.5°	341.0	376.8	431.0	473.2	489.3
65°	306.1	342.9	396.6	438.8	454.9
67.5°	268.5	307.1	362.1	403.0	418.6
70°	235.0	271.3	325.4	367.2	382.8
72.5°	194.2	235.5	287.3	328.6	345.6
75°	159.3	200.1	249.7	289.2	299.3
77.5°	122.5	163.4	212.5	238.2	245.1
80°	90.0	128.5	168.0	181.8	182.2
82.5°	60.6	94.6	117.0	123.9	123.0
85°	33.5	57.8	63.8	62.0	60.1
87.5°	13.8	19.3	15.6	11.0	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)