

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: P474005

Luminaire Tested: **24CZ2-155VHE-S-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474005
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-155VHE-S-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

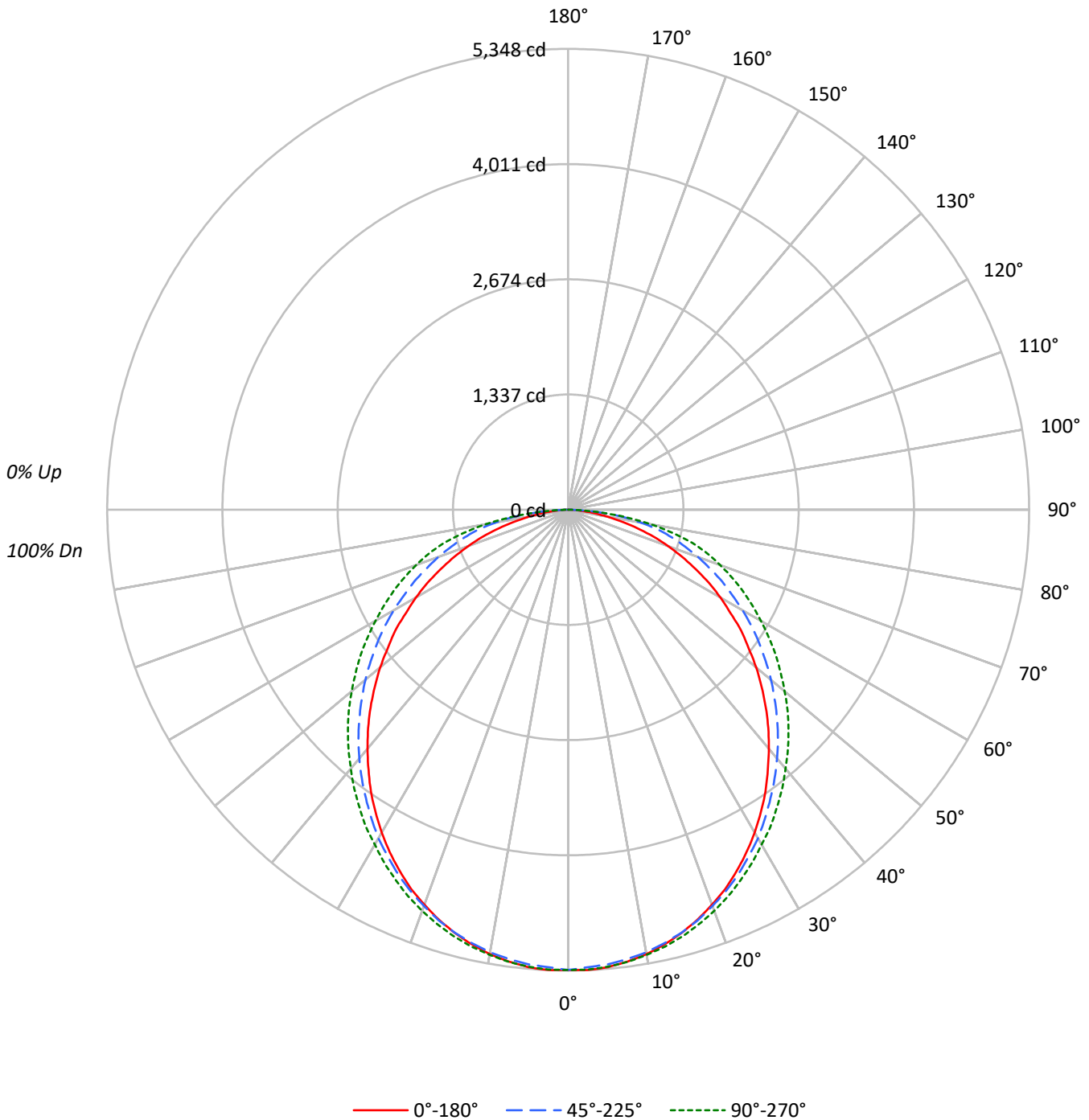
Lumens per Lamp: N/A
Luminaire Lumens: 15301.1 lumens
Efficiency: N/A
Efficacy: 134.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 114
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	99	95	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74		81	76	72		78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62		71	65	61		68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7186	7186	7186
5°	7196	7152	7190
10°	7156	7125	7166
15°	7082	7079	7138
20°	6985	7007	7093
25°	6869	6929	7037
30°	6724	6841	6970
35°	6556	6721	6931
40°	6361	6621	6891
45°	6169	6518	6877
50°	5961	6429	6860
55°	5748	6350	6898
60°	5485	6290	6946
65°	5193	6265	7113
70°	4845	6298	7366
75°	4312	6481	7761
80°	3525	6621	7576
85°	2484	5781	5897



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	504.9	3.3
10°-20°	1438.1	9.4
20°-30°	2155.6	14.1
30°-40°	2567.4	16.8
40°-50°	2647.3	17.3
50°-60°	2415.6	15.8
60°-70°	1931.6	12.6
70°-80°	1261.7	8.2
80°-90°	378.8	2.5
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°	4098.6	26.8
0°-40°	6666.0	43.6
0°-60°	11728.9	76.7
0°-90°	15301.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15301.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5341	5341	5341	5341	5341	
5°	5328	5318	5296	5328	5323	506
15°	5084	5087	5082	5125	5125	1433
25°	4627	4634	4667	4735	4740	2130
35°	3991	4019	4092	4195	4220	2493
45°	3242	3300	3426	3569	3614	2500
55°	2450	2521	2707	2885	2941	2183
65°	1631	1742	1968	2161	2234	1617
75°	829	968	1247	1448	1493	881
85°	161	289	374	382	382	204
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5340.8	5340.8	5340.8	5340.8	5340.8
2.5°	5348.3	5340.8	5313.1	5345.8	5340.8
5°	5328.2	5318.1	5295.5	5328.2	5323.2
7.5°	5288.0	5282.9	5260.3	5298.0	5293.0
10°	5237.7	5232.7	5215.1	5252.8	5245.2
12.5°	5167.3	5164.8	5152.3	5197.5	5192.5
15°	5084.4	5086.9	5081.9	5124.6	5124.6
17.5°	4988.9	4986.4	4996.4	5049.2	5044.2
20°	4878.3	4880.8	4893.4	4953.7	4953.7
22.5°	4762.7	4760.2	4787.8	4848.1	4853.2
25°	4627.0	4634.5	4667.2	4735.0	4740.1
27.5°	4481.2	4493.8	4534.0	4611.9	4619.4
30°	4327.9	4343.0	4403.3	4476.2	4486.2
32.5°	4159.5	4192.2	4247.5	4340.5	4365.6
35°	3991.1	4018.8	4091.6	4194.7	4219.8
37.5°	3805.1	3850.4	3933.3	4046.4	4079.1
40°	3621.7	3666.9	3769.9	3888.1	3923.3
42.5°	3435.7	3483.4	3601.6	3734.8	3772.5
45°	3242.2	3300.0	3425.6	3568.9	3614.1
47.5°	3043.6	3111.5	3247.2	3403.0	3453.3
50°	2847.6	2915.4	3071.2	3232.1	3277.3
52.5°	2636.4	2721.9	2887.8	3061.2	3106.4
55°	2450.5	2520.8	2706.8	2885.3	2940.6
57.5°	2231.8	2327.3	2525.9	2706.8	2759.6
60°	2038.3	2126.2	2337.4	2520.8	2581.2
62.5°	1842.2	1932.7	2143.8	2352.4	2407.7
65°	1631.1	1741.7	1967.9	2161.4	2234.3
67.5°	1430.1	1545.7	1776.9	1983.0	2058.4
70°	1231.5	1349.6	1601.0	1812.1	1872.4
72.5°	1035.5	1158.6	1420.0	1626.1	1696.5
75°	829.4	967.6	1246.6	1447.7	1492.9
77.5°	635.9	789.2	1070.7	1206.4	1239.1
80°	454.9	623.3	854.5	952.5	977.7
82.5°	299.1	462.4	638.4	691.2	683.6
85°	160.9	289.0	374.5	382.0	382.0
87.5°	62.8	115.6	118.1	90.5	85.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)