

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: P474745

Luminaire Tested: **24CZ2-105VHE-SQR-UNV-L850-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474745
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-105VHE-SQR-UNV-L850-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10242.6 lumens
Efficiency: N/A
Efficacy: 135.3 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

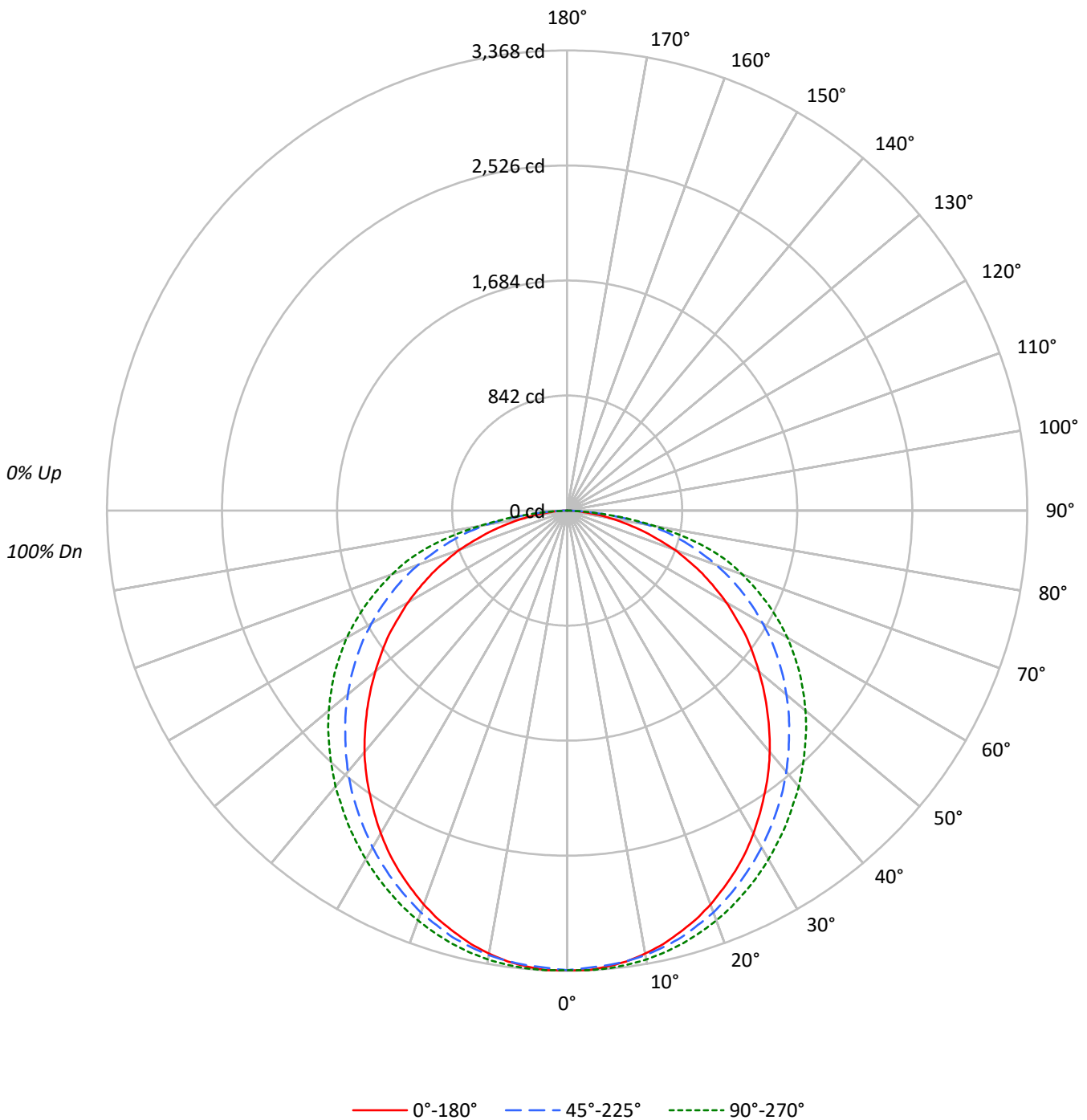
Input Watts (W): 75.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9054	9054	9054
5°	9053	9026	9088
10°	8996	9028	9117
15°	8899	9008	9131
20°	8786	8964	9142
25°	8644	8901	9144
30°	8476	8847	9157
35°	8284	8794	9192
40°	8105	8766	9266
45°	7884	8743	9366
50°	7672	8768	9536
55°	7493	8829	9750
60°	7239	8895	10022
65°	6950	9002	10325
70°	6592	9128	10737
75°	5903	9256	11093
80°	4970	9281	10067
85°	3690	7024	6620



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	318.8	3.1
10°-20°	913.7	8.9
20°-30°	1383.2	13.5
30°-40°	1673.3	16.3
40°-50°	1766.2	17.2
50°-60°	1665.6	16.3
60°-70°	1373.2	13.4
70°-80°	900.8	8.8
80°-90°	247.7	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°	2615.8	25.5
0°-40°	4289.0	41.9
0°-60°	7720.9	75.4
0°-90°	10242.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10242.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3364	3364	3364	3364	3364	
5°	3351	3351	3341	3364	3364	318
15°	3194	3212	3233	3271	3278	901
25°	2911	2947	2998	3060	3080	1341
35°	2522	2587	2677	2769	2798	1579
45°	2072	2165	2297	2420	2461	1599
55°	1597	1710	1882	2022	2078	1423
65°	1092	1222	1414	1564	1622	1078
75°	568	714	890	1031	1067	600
85°	120	206	228	221	214	148
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3364.4	3364.4	3364.4	3364.4	3364.4
2.5°	3367.6	3364.4	3349.6	3369.3	3367.6
5°	3351.3	3351.3	3341.4	3364.4	3364.4
7.5°	3328.4	3330.0	3326.7	3352.9	3352.9
10°	3292.4	3298.9	3303.8	3333.3	3336.5
12.5°	3249.8	3261.3	3271.1	3307.1	3310.4
15°	3194.2	3212.2	3233.4	3271.1	3277.6
17.5°	3136.9	3158.2	3181.1	3230.2	3238.4
20°	3068.2	3092.7	3130.4	3179.4	3192.5
22.5°	2991.3	3025.6	3064.9	3123.8	3140.2
25°	2911.1	2947.1	2997.8	3060.0	3079.6
27.5°	2824.4	2866.9	2924.2	2996.2	3017.4
30°	2727.8	2776.9	2847.3	2924.2	2947.1
32.5°	2626.4	2683.6	2762.2	2847.3	2873.4
35°	2521.6	2587.1	2677.1	2768.7	2798.2
37.5°	2418.5	2484.0	2590.4	2686.9	2714.7
40°	2307.3	2379.3	2495.4	2598.5	2637.8
42.5°	2189.4	2274.5	2397.3	2511.8	2549.4
45°	2071.6	2164.9	2297.4	2420.2	2461.1
47.5°	1952.2	2055.3	2200.9	2325.3	2372.7
50°	1832.7	1942.4	2094.5	2228.7	2277.8
52.5°	1711.6	1826.2	1991.4	2133.8	2178.0
55°	1597.1	1710.0	1881.8	2022.5	2078.2
57.5°	1464.5	1592.2	1773.8	1916.2	1970.2
60°	1345.1	1469.5	1652.7	1803.3	1862.2
62.5°	1215.8	1343.5	1536.5	1687.1	1744.4
65°	1091.5	1222.4	1413.8	1564.4	1621.6
67.5°	957.3	1094.7	1291.1	1436.7	1492.4
70°	837.8	967.1	1160.2	1309.1	1364.7
72.5°	692.2	839.5	1024.4	1171.6	1232.2
75°	567.8	713.5	890.2	1030.9	1066.9
77.5°	436.9	582.5	757.6	849.3	873.8
80°	320.7	458.2	598.9	648.0	649.6
82.5°	216.0	337.1	417.3	441.8	438.5
85°	119.5	206.2	227.5	220.9	214.4
87.5°	49.1	68.7	55.6	39.3	31.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)