

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: P474842

Luminaire Tested: **22CZ2-85VHE-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474842
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-85VHE-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

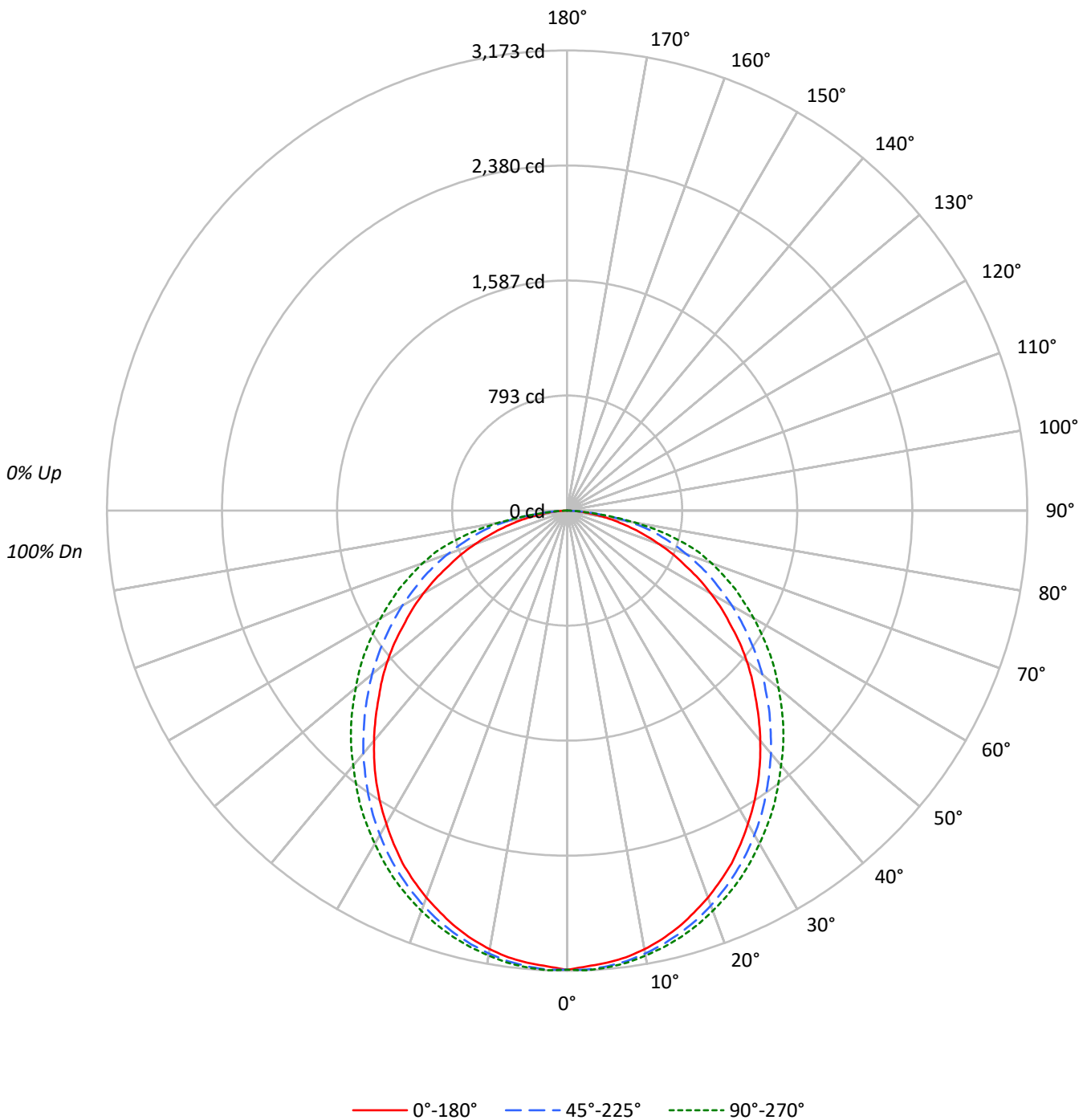
Lumens per Lamp: N/A
Luminaire Lumens: 8729.4 lumens
Efficiency: N/A
Efficacy: 138.3 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 63.1
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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8519	8519	8519
5°	8457	8522	8542
10°	8393	8474	8514
15°	8280	8398	8475
20°	8131	8300	8411
25°	7970	8173	8342
30°	7750	8025	8243
35°	7533	7854	8163
40°	7278	7679	8062
45°	7000	7505	8025
50°	6773	7353	7963
55°	6457	7193	7980
60°	6166	7069	8002
65°	5733	6977	8129
70°	5298	6880	8331
75°	4738	6848	8382
80°	3973	6490	7319
85°	3075	4443	4159



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	299.1	3.4
10°-20°	849.1	9.7
20°-30°	1266.0	14.5
30°-40°	1494.5	17.1
40°-50°	1523.2	17.4
50°-60°	1373.6	15.7
60°-70°	1079.6	12.4
70°-80°	676.0	7.7
80°-90°	168.5	1.9
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°	2414.1	27.7
0°-40°	3908.6	44.8
0°-60°	6805.3	78.0
0°-90°	8729.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8729.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3166	3166	3166	3166	3166	
5°	3131	3138	3155	3162	3162	297
15°	2972	2985	3014	3037	3042	837
25°	2684	2704	2752	2795	2810	1234
35°	2293	2323	2391	2457	2485	1433
45°	1839	1880	1972	2068	2109	1423
55°	1376	1419	1533	1651	1701	1235
65°	900	956	1096	1218	1277	898
75°	456	524	659	777	806	484
85°	100	127	144	144	135	120
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3165.7	3165.7	3165.7	3165.7	3165.7
2.5°	3145.4	3152.8	3167.6	3173.1	3173.1
5°	3130.7	3138.1	3154.7	3162.1	3162.1
7.5°	3106.7	3114.1	3134.4	3143.6	3145.4
10°	3071.7	3080.9	3101.2	3115.9	3115.9
12.5°	3027.4	3036.6	3062.4	3080.9	3082.7
15°	2972.0	2984.9	3014.5	3036.6	3042.1
17.5°	2907.5	2927.8	2961.0	2988.6	2994.2
20°	2839.2	2859.5	2898.2	2929.6	2937.0
22.5°	2763.6	2782.0	2828.1	2866.9	2876.1
25°	2684.2	2704.5	2752.5	2794.9	2809.7
27.5°	2590.2	2614.1	2671.3	2719.3	2734.0
30°	2494.2	2523.7	2582.8	2636.3	2652.9
32.5°	2396.4	2424.1	2490.5	2547.7	2569.9
35°	2293.1	2322.7	2390.9	2457.3	2485.0
37.5°	2184.3	2213.8	2287.6	2363.2	2389.1
40°	2071.8	2106.8	2186.1	2267.3	2295.0
42.5°	1957.4	1994.3	2077.3	2167.7	2204.6
45°	1839.3	1879.9	1972.1	2068.1	2108.6
47.5°	1732.3	1765.5	1861.4	1966.6	2005.3
50°	1617.9	1649.3	1756.3	1861.4	1902.0
52.5°	1501.7	1531.2	1645.6	1756.3	1806.1
55°	1376.2	1418.7	1533.1	1651.1	1700.9
57.5°	1265.6	1304.3	1422.4	1542.3	1590.3
60°	1145.6	1186.2	1313.5	1435.3	1486.9
62.5°	1025.7	1070.0	1199.1	1330.1	1378.1
65°	900.3	955.6	1095.8	1217.6	1276.6
67.5°	793.3	846.8	985.1	1112.4	1164.1
70°	673.4	736.1	874.5	1003.6	1058.9
72.5°	560.8	623.6	765.6	894.7	950.1
75°	455.7	523.9	658.6	776.7	806.2
77.5°	354.2	418.8	553.5	621.7	653.1
80°	256.4	319.2	418.8	464.9	472.3
82.5°	173.4	226.9	284.1	297.0	289.6
85°	99.6	127.3	143.9	143.9	134.7
87.5°	40.6	40.6	35.1	22.1	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)