

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: P474841

Luminaire Tested: **22CZ2-80VHE-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474841
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-80VHE-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

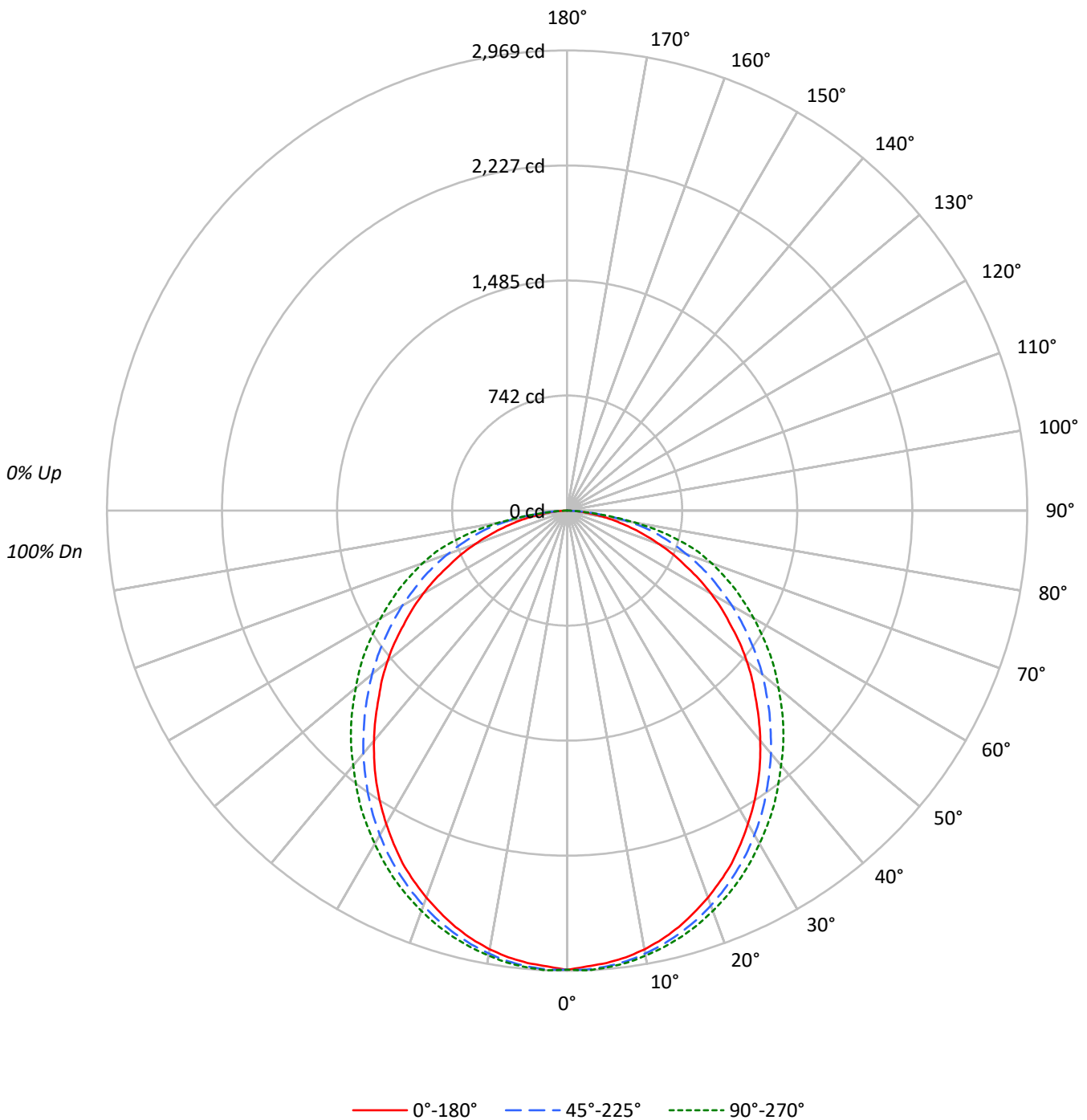
Lumens per Lamp: N/A
Luminaire Lumens: 8169.0 lumens
Efficiency: N/A
Efficacy: 139.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 58.7
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	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°	7972	7972	7972
5°	7914	7974	7993
10°	7855	7930	7968
15°	7748	7859	7931
20°	7609	7767	7871
25°	7458	7648	7807
30°	7253	7510	7714
35°	7049	7350	7639
40°	6810	7187	7544
45°	6550	7023	7510
50°	6339	6880	7451
55°	6042	6731	7468
60°	5770	6616	7489
65°	5365	6530	7607
70°	4958	6438	7797
75°	4433	6408	7844
80°	3719	6073	6850
85°	2878	4159	3890



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.9	3.4
10°-20°	794.5	9.7
20°-30°	1184.7	14.5
30°-40°	1398.5	17.1
40°-50°	1425.4	17.4
50°-60°	1285.4	15.7
60°-70°	1010.3	12.4
70°-80°	632.6	7.7
80°-90°	157.7	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°	2259.1	27.7
0°-40°	3657.6	44.8
0°-60°	6368.4	78.0
0°-90°	8169.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8169.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2962	2962	2962	2962	2962	
5°	2930	2937	2952	2959	2959	278
15°	2781	2793	2821	2842	2847	783
25°	2512	2531	2576	2616	2629	1155
35°	2146	2174	2237	2300	2326	1341
45°	1721	1759	1846	1935	1973	1332
55°	1288	1328	1435	1545	1592	1156
65°	842	894	1026	1139	1195	840
75°	426	490	616	727	754	453
85°	93	119	135	135	126	112
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2962.5	2962.5	2962.5	2962.5	2962.5
2.5°	2943.5	2950.4	2964.2	2969.4	2969.4
5°	2929.7	2936.6	2952.1	2959.0	2959.0
7.5°	2907.3	2914.2	2933.2	2941.8	2943.5
10°	2874.5	2883.1	2902.1	2915.9	2915.9
12.5°	2833.0	2841.7	2865.8	2883.1	2884.8
15°	2781.2	2793.3	2820.9	2841.7	2846.8
17.5°	2720.8	2739.8	2770.9	2796.8	2801.9
20°	2656.9	2675.9	2712.2	2741.5	2748.4
22.5°	2586.1	2603.4	2646.6	2682.8	2691.5
25°	2511.9	2530.9	2575.8	2615.5	2629.3
27.5°	2423.9	2446.3	2499.8	2544.7	2558.5
30°	2334.1	2361.7	2417.0	2467.0	2482.6
32.5°	2242.6	2268.5	2330.6	2384.2	2404.9
35°	2145.9	2173.5	2237.4	2299.6	2325.5
37.5°	2044.1	2071.7	2140.7	2211.5	2235.7
40°	1938.7	1971.5	2045.8	2121.7	2147.6
42.5°	1831.7	1866.2	1943.9	2028.5	2063.0
45°	1721.2	1759.2	1845.5	1935.3	1973.3
47.5°	1621.1	1652.2	1741.9	1840.3	1876.6
50°	1514.1	1543.4	1643.5	1741.9	1779.9
52.5°	1405.3	1432.9	1539.9	1643.5	1690.1
55°	1287.9	1327.6	1434.6	1545.1	1591.7
57.5°	1184.3	1220.6	1331.1	1443.3	1488.2
60°	1072.1	1110.1	1229.2	1343.1	1391.5
62.5°	959.9	1001.3	1122.2	1244.7	1289.6
65°	842.5	894.3	1025.5	1139.4	1194.7
67.5°	742.4	792.4	921.9	1041.0	1089.4
70°	630.1	688.8	818.3	939.2	991.0
72.5°	524.8	583.5	716.5	837.3	889.1
75°	426.4	490.3	616.3	726.8	754.4
77.5°	331.5	391.9	517.9	581.8	611.1
80°	240.0	298.7	391.9	435.1	442.0
82.5°	162.3	212.3	265.9	278.0	271.0
85°	93.2	119.1	134.7	134.7	126.0
87.5°	38.0	38.0	32.8	20.7	12.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)