

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: P474838

Luminaire Tested: **22CZ2-65VHE-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474838
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-65VHE-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

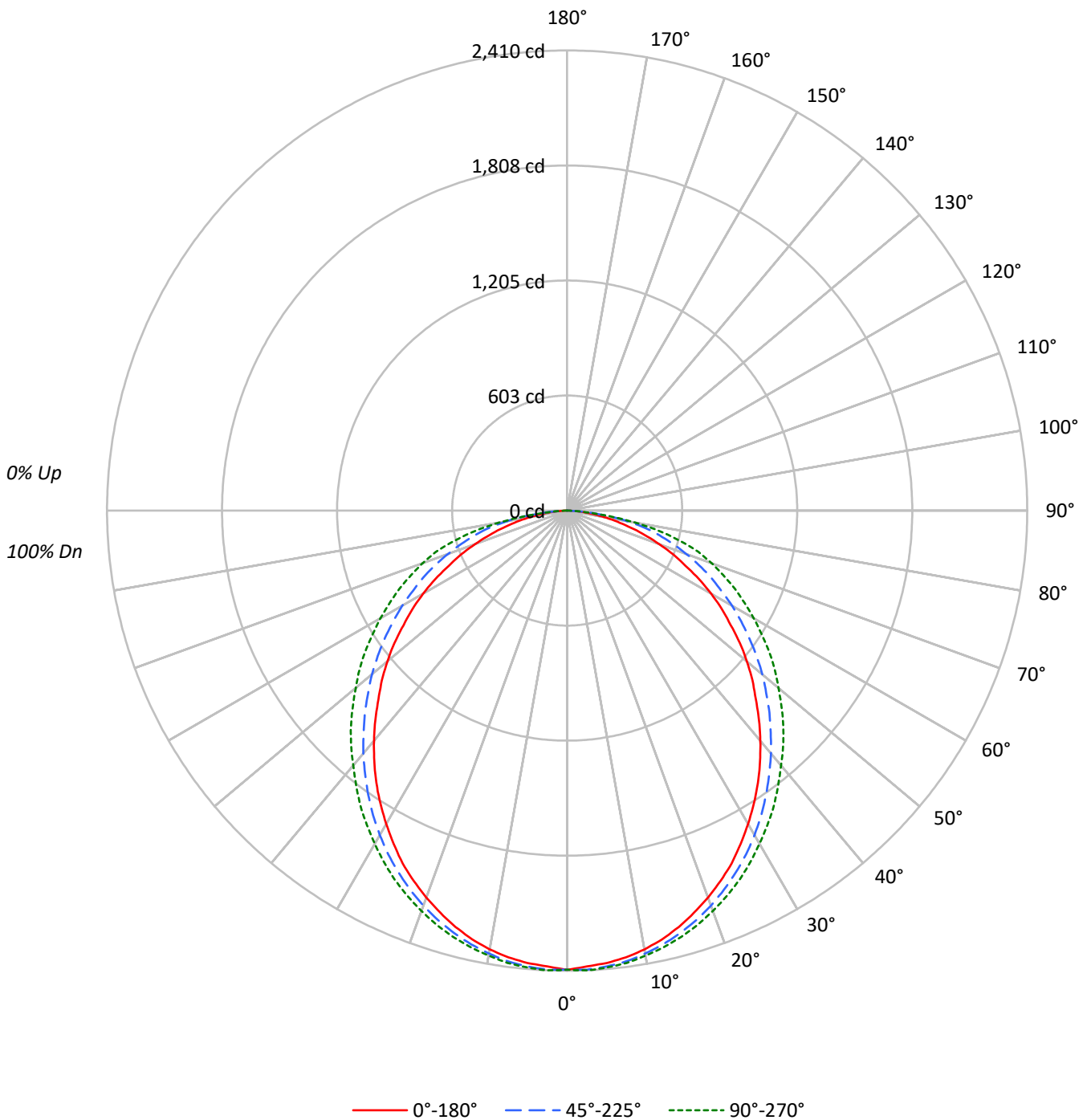
Lumens per Lamp: N/A
Luminaire Lumens: 6631.4 lumens
Efficiency: N/A
Efficacy: 145.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 45.7
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°	6472	6472	6472
5°	6424	6474	6489
10°	6376	6437	6468
15°	6290	6380	6438
20°	6176	6305	6389
25°	6054	6209	6337
30°	5888	6096	6262
35°	5723	5967	6202
40°	5528	5834	6124
45°	5317	5701	6096
50°	5146	5586	6049
55°	4905	5464	6062
60°	4684	5370	6079
65°	4355	5301	6175
70°	4024	5227	6329
75°	3599	5202	6367
80°	3019	4930	5560
85°	2337	3375	3159



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.2	3.4
10°-20°	645.0	9.7
20°-30°	961.7	14.5
30°-40°	1135.3	17.1
40°-50°	1157.1	17.4
50°-60°	1043.5	15.7
60°-70°	820.2	12.4
70°-80°	513.5	7.7
80°-90°	128.0	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°	1833.9	27.7
0°-40°	2969.2	44.8
0°-60°	5169.7	78.0
0°-90°	6631.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6631.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2405	2405	2405	2405	2405	
5°	2378	2384	2396	2402	2402	226
15°	2258	2268	2290	2307	2311	636
25°	2039	2054	2091	2123	2134	937
35°	1742	1764	1816	1867	1888	1089
45°	1397	1428	1498	1571	1602	1081
55°	1046	1078	1165	1254	1292	938
65°	684	726	832	925	970	682
75°	346	398	500	590	612	368
85°	76	97	109	109	102	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2404.9	2404.9	2404.9	2404.9	2404.9
2.5°	2389.5	2395.1	2406.3	2410.5	2410.5
5°	2378.3	2383.9	2396.5	2402.1	2402.1
7.5°	2360.0	2365.6	2381.1	2388.1	2389.5
10°	2333.4	2340.4	2355.8	2367.0	2367.0
12.5°	2299.8	2306.8	2326.4	2340.4	2341.8
15°	2257.7	2267.5	2290.0	2306.8	2311.0
17.5°	2208.7	2224.1	2249.3	2270.3	2274.6
20°	2156.8	2172.2	2201.7	2225.5	2231.1
22.5°	2099.4	2113.4	2148.4	2177.9	2184.9
25°	2039.1	2054.5	2091.0	2123.2	2134.4
27.5°	1967.6	1985.9	2029.3	2065.7	2076.9
30°	1894.8	1917.2	1962.0	2002.7	2015.3
32.5°	1820.5	1841.5	1892.0	1935.4	1952.2
35°	1742.0	1764.4	1816.3	1866.7	1887.8
37.5°	1659.3	1681.7	1737.8	1795.3	1814.9
40°	1573.8	1600.5	1660.7	1722.4	1743.4
42.5°	1486.9	1515.0	1578.0	1646.7	1674.7
45°	1397.2	1428.1	1498.1	1571.0	1601.9
47.5°	1316.0	1341.2	1414.1	1493.9	1523.4
50°	1229.1	1252.9	1334.2	1414.1	1444.9
52.5°	1140.8	1163.2	1250.1	1334.2	1372.0
55°	1045.5	1077.7	1164.6	1254.3	1292.1
57.5°	961.4	990.8	1080.5	1171.6	1208.0
60°	870.3	901.1	997.8	1090.3	1129.6
62.5°	779.2	812.8	910.9	1010.4	1046.9
65°	683.9	726.0	832.5	925.0	969.8
67.5°	602.6	643.3	748.4	845.1	884.3
70°	511.5	559.2	664.3	762.4	804.4
72.5°	426.0	473.7	581.6	679.7	721.7
75°	346.2	398.0	500.3	590.0	612.4
77.5°	269.1	318.1	420.4	472.3	496.1
80°	194.8	242.5	318.1	353.2	358.8
82.5°	131.7	172.4	215.8	225.6	220.0
85°	75.7	96.7	109.3	109.3	102.3
87.5°	30.8	30.8	26.6	16.8	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)