

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: P474954

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

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474954  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-65VHE-S-UNV-L840-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6764.7 lumens  
Efficiency: N/A  
Efficacy: 148.0 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

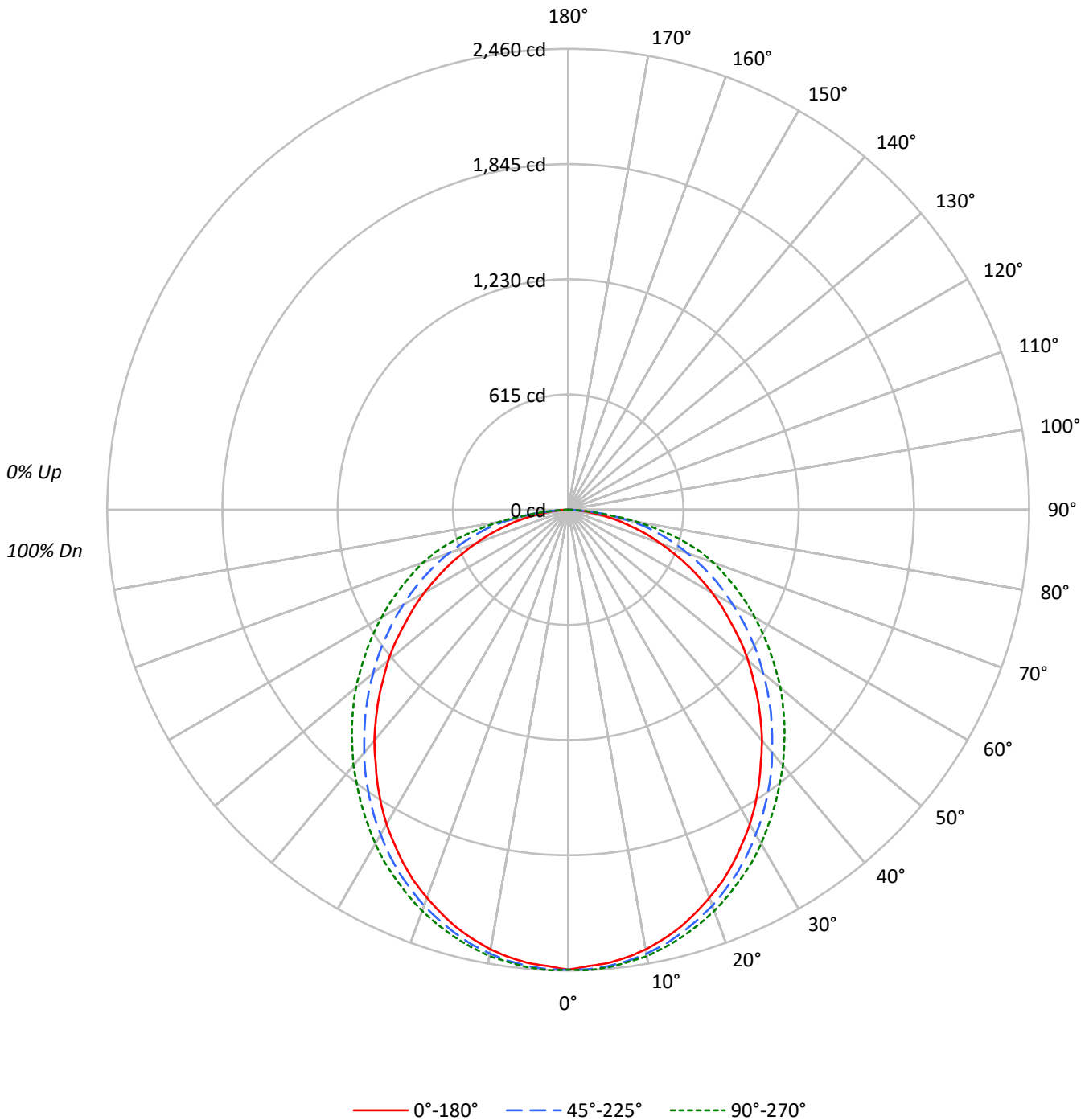
Input Watts (W): 45.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	88	86	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	74	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	32	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	6608	6608	6608
5°	6562	6607	6624
10°	6513	6576	6612
15°	6430	6517	6572
20°	6310	6441	6526
25°	6183	6343	6460
30°	6023	6221	6399
35°	5835	6093	6319
40°	5653	5946	6262
45°	5445	5819	6211
50°	5250	5689	6189
55°	5000	5576	6160
60°	4775	5463	6185
65°	4482	5400	6275
70°	4096	5332	6478
75°	3676	5293	6485
80°	3095	4998	5759
85°	2325	3387	3134



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	231.9	3.4
10°-20°	658.7	9.7
20°-30°	982.0	14.5
30°-40°	1158.8	17.1
40°-50°	1180.6	17.5
50°-60°	1064.8	15.7
60°-70°	836.2	12.4
70°-80°	522.8	7.7
80°-90°	128.9	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°	1872.7	27.7
0°-40°	3031.5	44.8
0°-60°	5276.8	78.0
0°-90°	6764.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6764.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2456	2456	2456	2456	2456	
5°	2429	2434	2446	2451	2452	230
15°	2308	2316	2339	2356	2359	650
25°	2082	2094	2136	2168	2176	958
35°	1776	1801	1855	1906	1924	1111
45°	1431	1455	1529	1603	1632	1104
55°	1066	1100	1188	1280	1313	956
65°	704	742	848	943	986	695
75°	354	403	509	596	624	378
85°	75	97	110	108	102	92
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2455.6	2455.6	2455.6	2455.6	2455.6
2.5°	2439.2	2444.1	2455.6	2460.5	2460.5
5°	2429.4	2434.3	2445.8	2450.7	2452.3
7.5°	2409.7	2416.3	2429.4	2435.9	2435.9
10°	2383.5	2391.7	2406.5	2416.3	2419.6
12.5°	2347.5	2357.4	2377.0	2388.5	2391.7
15°	2308.2	2316.4	2339.3	2355.7	2359.0
17.5°	2257.5	2270.6	2295.1	2316.4	2321.3
20°	2203.5	2218.2	2249.3	2273.9	2278.8
22.5°	2147.8	2159.3	2193.6	2223.1	2229.7
25°	2082.3	2093.8	2136.3	2167.5	2175.6
27.5°	2010.3	2029.9	2072.5	2108.5	2121.6
30°	1938.3	1957.9	2002.1	2044.7	2059.4
32.5°	1859.7	1881.0	1931.7	1975.9	1990.7
35°	1776.2	1800.8	1854.8	1905.5	1923.5
37.5°	1689.4	1717.3	1777.8	1831.9	1851.5
40°	1609.2	1628.9	1692.7	1754.9	1782.7
42.5°	1519.2	1545.4	1609.2	1679.6	1705.8
45°	1430.8	1455.3	1529.0	1602.7	1632.1
47.5°	1339.1	1370.2	1443.9	1525.7	1555.2
50°	1254.0	1280.2	1358.8	1445.5	1478.3
52.5°	1162.3	1190.1	1275.3	1365.3	1394.8
55°	1065.7	1100.1	1188.5	1280.2	1312.9
57.5°	977.3	1010.1	1103.4	1198.3	1232.7
60°	887.3	920.0	1015.0	1111.6	1149.2
62.5°	792.3	830.0	933.1	1026.4	1069.0
65°	703.9	741.6	848.0	942.9	985.5
67.5°	610.6	654.8	761.2	861.1	903.7
70°	520.6	573.0	677.7	776.0	823.4
72.5°	440.4	482.9	592.6	695.7	735.0
75°	353.6	402.7	509.1	595.9	623.7
77.5°	279.9	322.5	424.0	481.3	499.3
80°	199.7	247.2	322.5	356.9	371.6
82.5°	132.6	171.9	219.4	225.9	222.6
85°	75.3	96.6	109.7	108.0	101.5
87.5°	29.5	32.7	24.6	14.7	11.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)