

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: P474837

Luminaire Tested: **22CZ2-60VHE-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474837
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-60VHE-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

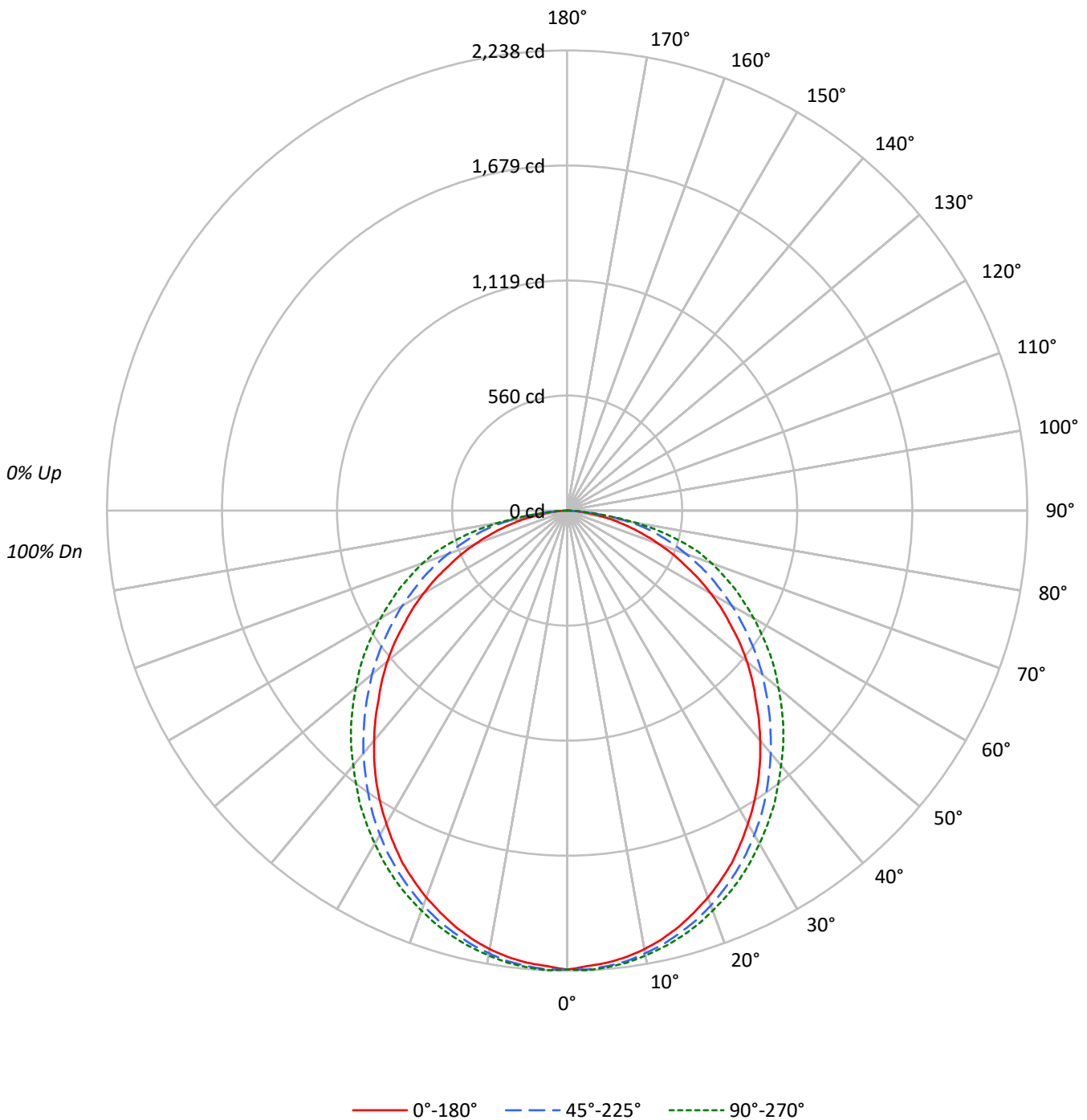
Lumens per Lamp: N/A
Luminaire Lumens: 6155.5 lumens
Efficiency: N/A
Efficacy: 146.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 42.1
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°	6007	6007	6007
5°	5963	6009	6023
10°	5919	5975	6004
15°	5838	5922	5976
20°	5733	5853	5931
25°	5620	5763	5883
30°	5465	5659	5813
35°	5312	5538	5756
40°	5132	5415	5685
45°	4936	5292	5659
50°	4776	5184	5615
55°	4553	5072	5627
60°	4348	4985	5643
65°	4042	4920	5732
70°	3736	4851	5875
75°	3341	4828	5911
80°	2802	4576	5160
85°	2167	3134	2933



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.9	3.4
10°-20°	598.7	9.7
20°-30°	892.7	14.5
30°-40°	1053.8	17.1
40°-50°	1074.0	17.4
50°-60°	968.6	15.7
60°-70°	761.3	12.4
70°-80°	476.7	7.7
80°-90°	118.8	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°	1702.3	27.7
0°-40°	2756.1	44.8
0°-60°	4798.7	78.0
0°-90°	6155.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6155.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2232	2232	2232	2232	2232	
5°	2208	2213	2224	2230	2230	209
15°	2096	2105	2126	2141	2145	590
25°	1893	1907	1941	1971	1981	870
35°	1617	1638	1686	1733	1752	1010
45°	1297	1326	1391	1458	1487	1003
55°	970	1000	1081	1164	1199	871
65°	635	674	773	859	900	633
75°	321	370	464	548	568	341
85°	70	90	102	102	95	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2232.3	2232.3	2232.3	2232.3	2232.3
2.5°	2218.0	2223.2	2233.6	2237.5	2237.5
5°	2207.6	2212.8	2224.5	2229.7	2229.7
7.5°	2190.7	2195.9	2210.2	2216.7	2218.0
10°	2166.0	2172.5	2186.8	2197.2	2197.2
12.5°	2134.7	2141.3	2159.5	2172.5	2173.8
15°	2095.7	2104.8	2125.6	2141.3	2145.2
17.5°	2050.2	2064.5	2087.9	2107.4	2111.3
20°	2002.1	2016.4	2043.7	2065.8	2071.0
22.5°	1948.7	1961.7	1994.3	2021.6	2028.1
25°	1892.8	1907.1	1940.9	1970.8	1981.2
27.5°	1826.4	1843.4	1883.7	1917.5	1927.9
30°	1758.8	1779.6	1821.2	1859.0	1870.7
32.5°	1689.8	1709.4	1756.2	1796.5	1812.1
35°	1617.0	1637.8	1685.9	1732.8	1752.3
37.5°	1540.2	1561.1	1613.1	1666.4	1684.6
40°	1460.9	1485.6	1541.5	1598.8	1618.3
42.5°	1380.2	1406.3	1464.8	1528.5	1554.6
45°	1297.0	1325.6	1390.6	1458.3	1486.9
47.5°	1221.5	1244.9	1312.6	1386.7	1414.1
50°	1140.9	1163.0	1238.4	1312.6	1341.2
52.5°	1058.9	1079.7	1160.4	1238.4	1273.6
55°	970.5	1000.4	1081.0	1164.3	1199.4
57.5°	892.4	919.7	1003.0	1087.5	1121.4
60°	807.8	836.5	926.2	1012.1	1048.5
62.5°	723.3	754.5	845.6	937.9	971.8
65°	634.8	673.9	772.7	858.6	900.2
67.5°	559.4	597.1	694.7	784.4	820.9
70°	474.8	519.1	616.6	707.7	746.7
72.5°	395.5	439.7	539.9	630.9	670.0
75°	321.3	369.5	464.4	547.7	568.5
77.5°	249.8	295.3	390.3	438.4	460.5
80°	180.8	225.1	295.3	327.8	333.0
82.5°	122.3	160.0	200.3	209.4	204.2
85°	70.2	89.8	101.5	101.5	95.0
87.5°	28.6	28.6	24.7	15.6	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)