

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: P475193

Luminaire Tested: **22CZ2-100VHE-HRP-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475193
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-100VHE-HRP-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ HRP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8271.6 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

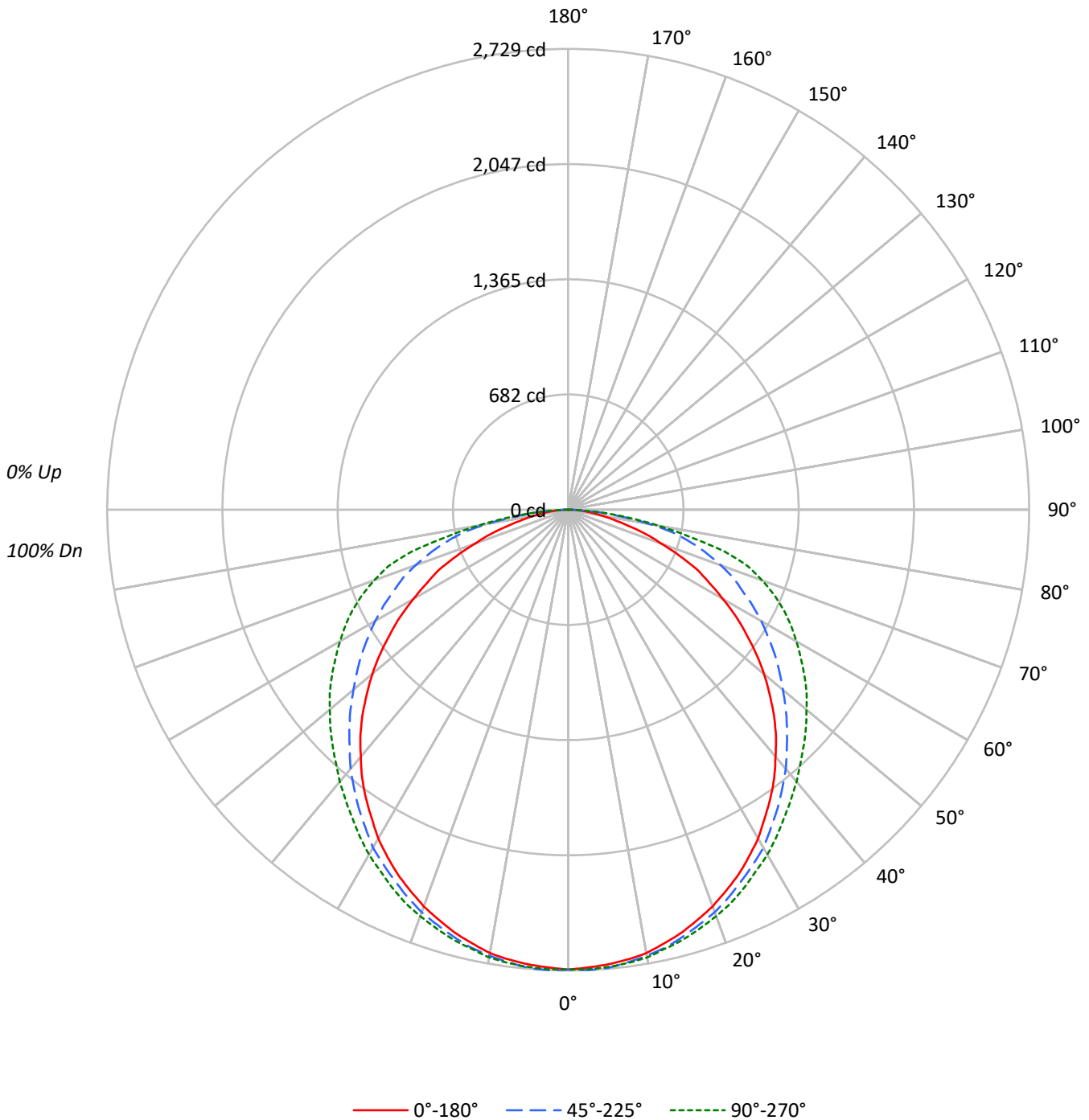
Input Watts (W): 75.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7329	7329	7329
5°	7301	7357	7343
10°	7286	7329	7358
15°	7224	7297	7341
20°	7158	7262	7336
25°	7081	7204	7328
30°	6988	7182	7329
35°	6856	7097	7319
40°	6708	7038	7386
45°	6553	6971	7506
50°	6335	6947	7711
55°	6046	7002	8005
60°	5701	7105	8397
65°	5382	7243	8972
70°	4598	7554	9607
75°	3853	7869	9982
80°	3157	7600	8328
85°	2732	5635	6120



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.1	3.1
10°-20°	738.4	8.9
20°-30°	1119.1	13.5
30°-40°	1351.3	16.3
40°-50°	1419.9	17.2
50°-60°	1336.0	16.2
60°-70°	1113.9	13.5
70°-80°	738.1	8.9
80°-90°	196.7	2.4
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°	2115.7	25.6
0°-40°	3467.0	41.9
0°-60°	6222.8	75.2
0°-90°	8271.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8271.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2724	2724	2724	2724	2724	
5°	2703	2708	2724	2724	2718	257
15°	2593	2604	2619	2630	2635	731
25°	2385	2400	2426	2458	2468	1098
35°	2087	2108	2160	2207	2228	1305
45°	1722	1748	1832	1925	1972	1326
55°	1289	1346	1492	1644	1706	1153
65°	845	918	1138	1325	1409	823
75°	371	517	757	913	960	402
85°	88	136	182	198	198	103
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2723.5	2723.5	2723.5	2723.5	2723.5
2.5°	2713.4	2718.5	2729.1	2729.1	2723.5
5°	2702.8	2707.9	2723.5	2723.5	2718.5
7.5°	2687.1	2692.7	2702.8	2713.4	2707.9
10°	2666.4	2671.5	2682.1	2692.7	2692.7
12.5°	2630.0	2635.1	2655.8	2661.4	2661.4
15°	2593.1	2603.7	2619.4	2630.0	2635.1
17.5°	2546.6	2556.7	2577.4	2598.7	2598.7
20°	2499.6	2509.7	2536.0	2556.7	2561.8
22.5°	2441.9	2457.6	2483.9	2509.7	2520.3
25°	2384.8	2400.5	2426.3	2457.6	2468.2
27.5°	2316.6	2332.2	2369.1	2405.5	2410.6
30°	2248.8	2264.5	2311.5	2342.8	2358.5
32.5°	2165.4	2186.1	2233.1	2280.2	2295.8
35°	2087.0	2108.3	2160.3	2207.3	2228.1
37.5°	2003.6	2024.3	2082.0	2139.6	2165.4
40°	1909.6	1935.9	2003.6	2066.3	2102.7
42.5°	1821.1	1847.4	1915.1	1998.5	2034.9
45°	1722.0	1747.8	1831.7	1925.2	1972.3
47.5°	1617.3	1648.7	1747.8	1863.0	1909.6
50°	1513.2	1549.6	1659.3	1789.7	1841.8
52.5°	1403.5	1450.5	1575.9	1716.9	1779.1
55°	1288.7	1346.4	1492.5	1643.6	1706.3
57.5°	1179.0	1231.6	1403.5	1565.3	1633.0
60°	1059.2	1126.9	1320.1	1486.9	1560.2
62.5°	944.4	1017.7	1231.6	1409.0	1486.9
65°	845.3	918.1	1137.5	1325.1	1409.0
67.5°	714.9	814.0	1059.2	1236.6	1320.1
70°	584.4	719.9	960.1	1142.6	1221.0
72.5°	485.4	615.8	861.0	1043.5	1116.8
75°	370.6	516.7	756.8	913.1	960.1
77.5°	276.6	427.7	647.1	725.5	730.6
80°	203.7	328.6	490.4	516.7	537.4
82.5°	141.1	229.5	318.5	349.4	360.0
85°	88.5	135.5	182.5	198.2	198.2
87.5°	47.0	52.1	62.7	62.7	62.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)