

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: P473876

Luminaire Tested: **24CZ2-65HE-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473876
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65HE-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6905.7 lumens
Efficiency: N/A
Efficacy: 141.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

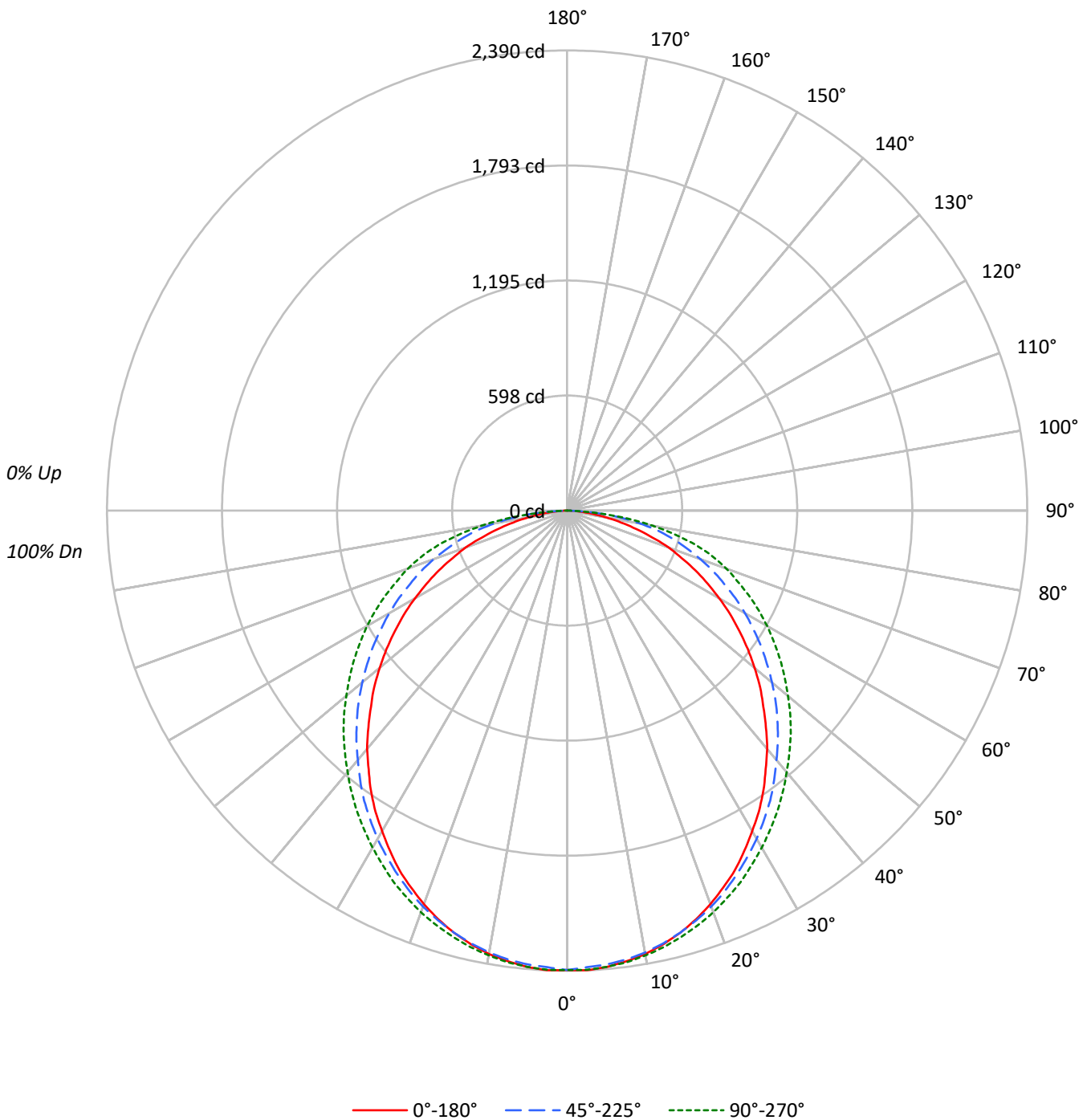
Input Watts (W): 48.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3211	3211	3211
5°	3212	3196	3212
10°	3195	3184	3205
15°	3162	3161	3192
20°	3115	3134	3179
25°	3061	3096	3163
30°	2986	3059	3141
35°	2919	3020	3128
40°	2839	2971	3116
45°	2743	2940	3125
50°	2660	2907	3134
55°	2562	2886	3169
60°	2456	2873	3227
65°	2341	2863	3310
70°	2203	2892	3463
75°	1937	2952	3602
80°	1616	2974	3475
85°	1153	2549	2583



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.6	3.3
10°-20°	642.5	9.3
20°-30°	963.9	14.0
30°-40°	1150.9	16.7
40°-50°	1192.1	17.3
50°-60°	1097.4	15.9
60°-70°	885.2	12.8
70°-80°	578.4	8.4
80°-90°	169.6	2.5
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°	1832.1	26.5
0°-40°	2982.9	43.2
0°-60°	5272.4	76.3
0°-90°	6905.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6905.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2386	2386	2386	2386	2386	
5°	2378	2376	2366	2380	2378	226
15°	2270	2270	2269	2292	2292	640
25°	2062	2066	2085	2123	2131	948
35°	1777	1793	1839	1889	1904	1110
45°	1441	1477	1545	1614	1642	1114
55°	1092	1139	1230	1321	1351	977
65°	735	785	899	1002	1040	727
75°	373	443	568	666	693	398
85°	75	129	165	175	167	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2386.3	2386.3	2386.3	2386.3	2386.3
2.5°	2389.7	2386.3	2374.1	2388.6	2387.5
5°	2378.5	2376.3	2366.3	2379.6	2378.5
7.5°	2360.7	2359.6	2351.8	2366.3	2366.3
10°	2338.4	2336.1	2330.6	2347.3	2346.2
12.5°	2307.1	2306.0	2302.7	2322.7	2321.6
15°	2270.3	2270.3	2269.2	2291.5	2291.5
17.5°	2225.7	2226.8	2231.3	2256.9	2258.0
20°	2175.5	2179.9	2188.9	2217.9	2220.1
22.5°	2118.6	2127.5	2139.8	2172.1	2175.5
25°	2061.7	2066.2	2085.1	2123.0	2130.9
27.5°	1992.5	2003.7	2028.2	2067.3	2075.1
30°	1922.2	1937.9	1969.1	2009.3	2021.5
32.5°	1853.1	1866.5	1903.3	1949.0	1963.5
35°	1777.2	1792.8	1838.6	1888.8	1904.4
37.5°	1693.5	1718.1	1766.0	1824.1	1840.8
40°	1616.6	1638.9	1691.3	1756.0	1773.9
42.5°	1528.4	1556.3	1619.9	1685.7	1708.0
45°	1441.4	1477.1	1545.2	1614.3	1642.2
47.5°	1360.0	1389.0	1469.3	1547.4	1571.9
50°	1270.7	1304.2	1389.0	1471.5	1497.2
52.5°	1182.6	1222.7	1308.6	1395.7	1423.5
55°	1092.2	1139.1	1230.5	1320.9	1351.0
57.5°	1005.2	1052.0	1146.9	1242.8	1274.1
60°	912.6	962.8	1067.7	1160.3	1199.3
62.5°	823.3	873.5	984.0	1084.4	1121.2
65°	735.2	785.4	899.2	1001.8	1039.8
67.5°	643.7	698.4	820.0	919.3	956.1
70°	560.0	612.5	735.2	841.2	880.2
72.5°	464.1	526.6	651.5	756.4	793.2
75°	372.6	442.9	567.9	666.0	692.8
77.5°	287.8	358.1	483.1	556.7	573.4
80°	208.6	280.0	383.8	435.1	448.5
82.5°	135.0	208.6	277.8	312.4	316.8
85°	74.7	129.4	165.1	175.2	167.3
87.5°	26.8	49.1	48.0	39.0	31.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)