

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: P474466

Luminaire Tested: **24CZ2-55-HRP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474466
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55-HRP-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

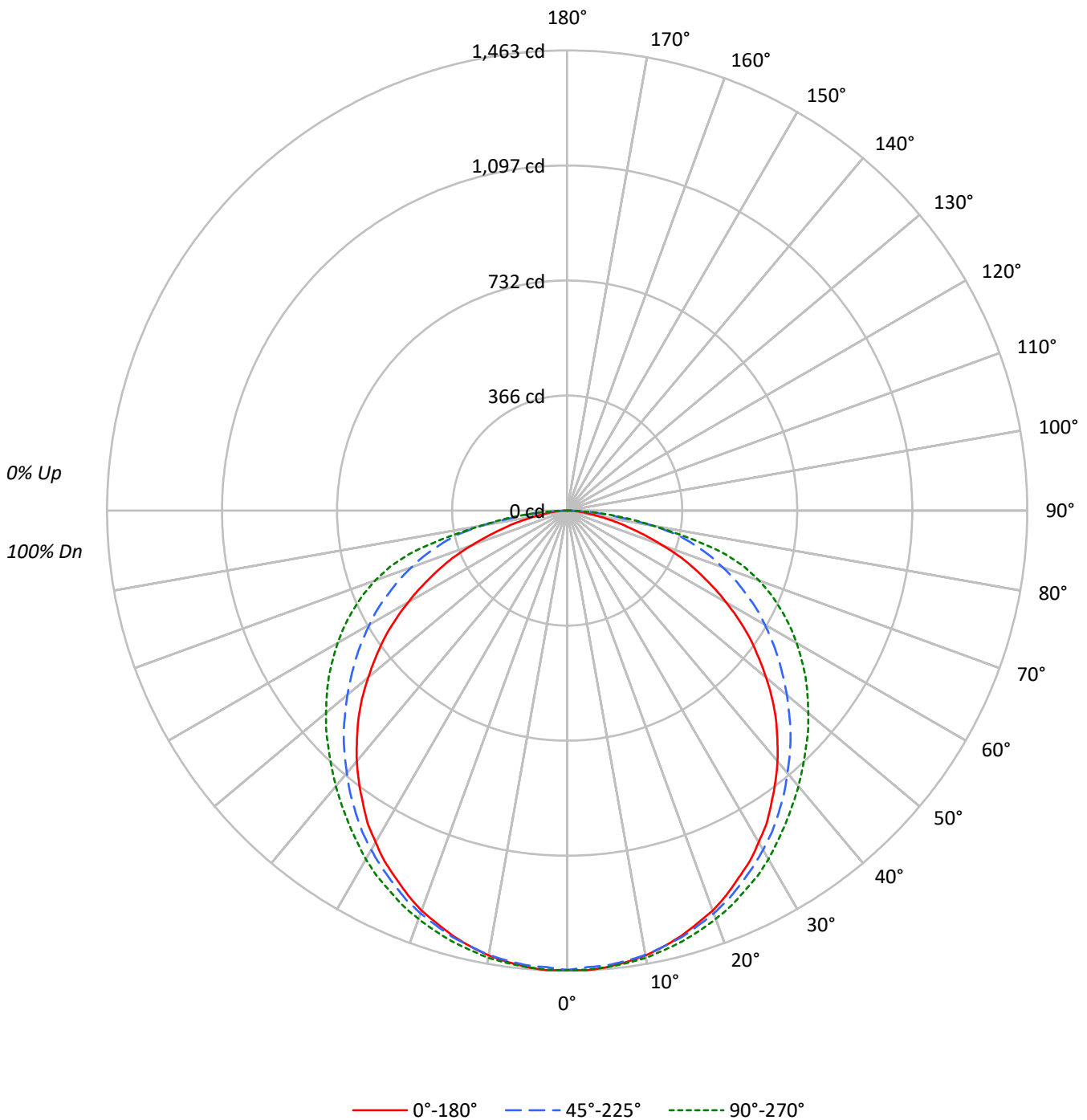
Lumens per Lamp: N/A
Luminaire Lumens: 4502.3 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43
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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1965	1965	1965
5°	1968	1960	1968
10°	1962	1960	1972
15°	1951	1956	1974
20°	1938	1951	1978
25°	1914	1942	1981
30°	1892	1936	1989
35°	1861	1926	1991
40°	1827	1914	2010
45°	1786	1912	2041
50°	1728	1910	2095
55°	1667	1923	2171
60°	1572	1953	2267
65°	1452	1999	2394
70°	1268	2068	2551
75°	1029	2175	2636
80°	760	2133	2133
85°	582	1572	1774



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.4	3.1
10°-20°	397.4	8.8
20°-30°	605.0	13.4
30°-40°	734.6	16.3
40°-50°	776.1	17.2
50°-60°	732.3	16.3
60°-70°	608.9	13.5
70°-80°	400.6	8.9
80°-90°	109.2	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°	1140.7	25.3
0°-40°	1875.3	41.7
0°-60°	3383.6	75.2
0°-90°	4502.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4502.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1461	1461	1461	1461	1461	
5°	1457	1457	1451	1457	1457	138
15°	1400	1402	1404	1417	1417	395
25°	1289	1297	1308	1331	1334	595
35°	1133	1146	1172	1202	1212	709
45°	939	958	1005	1054	1072	723
55°	711	741	820	897	926	633
65°	456	509	628	720	752	451
75°	198	288	418	496	507	213
85°	38	83	102	113	115	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1460.8	1460.8	1460.8	1460.8	1460.8
2.5°	1462.7	1460.8	1453.2	1460.8	1460.8
5°	1457.1	1457.1	1451.3	1457.1	1457.1
7.5°	1447.6	1447.6	1443.7	1451.3	1451.3
10°	1436.2	1436.2	1434.5	1443.7	1443.7
12.5°	1419.4	1421.1	1419.4	1430.6	1430.6
15°	1400.4	1402.3	1404.3	1417.4	1417.4
17.5°	1376.0	1379.7	1383.6	1398.5	1400.4
20°	1353.4	1355.1	1362.7	1379.7	1381.6
22.5°	1323.2	1328.8	1338.3	1355.1	1360.9
25°	1289.2	1296.7	1308.1	1330.8	1334.4
27.5°	1257.3	1262.9	1278.0	1302.5	1310.1
30°	1217.6	1227.1	1245.8	1270.4	1279.9
32.5°	1179.9	1189.4	1212.0	1238.3	1245.8
35°	1132.9	1146.0	1172.3	1202.5	1212.0
37.5°	1087.6	1100.8	1132.9	1166.7	1178.1
40°	1040.4	1055.5	1089.5	1129.0	1144.1
42.5°	989.5	1010.2	1047.9	1091.3	1108.3
45°	938.6	957.6	1004.6	1053.6	1072.5
47.5°	884.1	906.7	957.6	1016.0	1038.7
50°	825.7	853.9	912.3	976.4	1000.9
52.5°	767.2	799.2	865.1	936.7	963.2
55°	710.6	740.7	819.9	897.2	925.5
57.5°	648.5	686.2	772.8	855.6	884.1
60°	584.2	625.8	725.6	812.3	842.5
62.5°	520.2	567.4	680.4	767.2	799.2
65°	456.2	509.0	627.8	720.0	752.1
67.5°	393.9	452.3	578.6	671.1	703.0
70°	322.3	395.8	525.8	616.3	648.5
72.5°	256.3	341.3	474.9	559.9	588.1
75°	197.9	288.4	418.4	495.6	507.0
77.5°	145.1	235.6	360.0	386.3	388.3
80°	98.1	188.4	275.3	271.4	275.3
82.5°	64.0	141.4	173.3	194.2	196.0
85°	37.7	83.0	101.8	113.2	114.9
87.5°	18.8	28.2	35.8	37.7	41.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)