

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: P474425

Luminaire Tested: **24CZ2-60HE-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474425
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60HE-HRP-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5008.1 lumens
Efficiency: N/A
Efficacy: 113.6 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

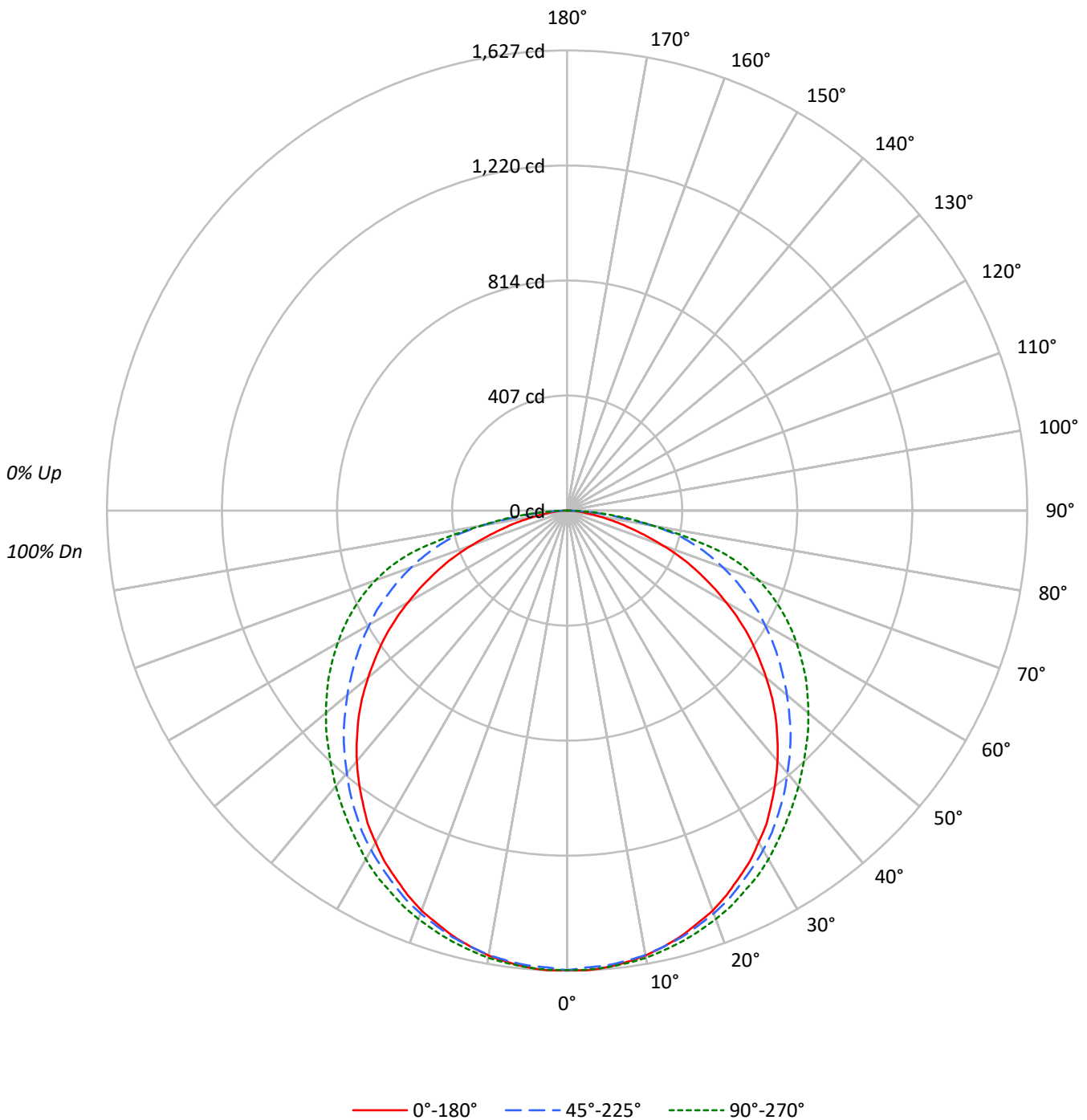
Input Watts (W): 44.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2186	2186	2186
5°	2189	2180	2189
10°	2183	2180	2194
15°	2170	2176	2196
20°	2156	2170	2201
25°	2129	2160	2204
30°	2104	2153	2212
35°	2070	2142	2214
40°	2033	2129	2235
45°	1987	2126	2270
50°	1922	2124	2331
55°	1854	2139	2415
60°	1749	2172	2522
65°	1615	2223	2664
70°	1410	2301	2838
75°	1144	2420	2932
80°	845	2373	2373
85°	648	1748	1973



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	153.9	3.1
10°-20°	442.0	8.8
20°-30°	672.9	13.4
30°-40°	817.1	16.3
40°-50°	863.3	17.2
50°-60°	814.6	16.3
60°-70°	677.3	13.5
70°-80°	445.6	8.9
80°-90°	121.5	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°	1268.9	25.3
0°-40°	2086.0	41.7
0°-60°	3763.8	75.2
0°-90°	5008.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5008.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1625	1625	1625	1625	1625	
5°	1621	1621	1614	1621	1621	154
15°	1558	1560	1562	1577	1577	439
25°	1434	1442	1455	1480	1484	662
35°	1260	1275	1304	1338	1348	789
45°	1044	1065	1118	1172	1193	804
55°	790	824	912	998	1030	704
65°	507	566	698	801	837	502
75°	220	321	466	551	564	237
85°	42	92	113	126	128	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1624.9	1624.9	1624.9	1624.9	1624.9
2.5°	1627.0	1624.9	1616.5	1624.9	1624.9
5°	1620.8	1620.8	1614.3	1620.8	1620.8
7.5°	1610.3	1610.3	1605.9	1614.3	1614.3
10°	1597.6	1597.6	1595.6	1605.9	1605.9
12.5°	1578.8	1580.8	1578.8	1591.3	1591.3
15°	1557.7	1559.9	1562.0	1576.7	1576.7
17.5°	1530.6	1534.7	1539.0	1555.6	1557.7
20°	1505.5	1507.4	1515.8	1534.7	1536.9
22.5°	1471.9	1478.1	1488.7	1507.4	1513.8
25°	1434.0	1442.4	1455.1	1480.3	1484.4
27.5°	1398.5	1404.7	1421.5	1448.9	1457.3
30°	1354.4	1364.9	1385.8	1413.1	1423.7
32.5°	1312.4	1323.0	1348.2	1377.4	1385.8
35°	1260.1	1274.8	1304.0	1337.6	1348.2
37.5°	1209.8	1224.4	1260.1	1297.8	1310.5
40°	1157.3	1174.1	1211.9	1255.8	1272.6
42.5°	1100.7	1123.7	1165.7	1213.9	1232.8
45°	1044.1	1065.2	1117.5	1171.9	1193.0
47.5°	983.4	1008.6	1065.2	1130.2	1155.3
50°	918.4	949.8	1014.8	1086.1	1113.4
52.5°	853.4	888.9	962.3	1041.9	1071.4
55°	790.4	824.0	912.0	998.0	1029.5
57.5°	721.3	763.3	859.7	951.8	983.4
60°	649.9	696.1	807.2	903.6	937.1
62.5°	578.6	631.1	756.8	853.4	888.9
65°	507.4	566.2	698.3	800.9	836.7
67.5°	438.1	503.1	643.6	746.5	782.0
70°	358.5	440.3	584.9	685.6	721.3
72.5°	285.1	379.6	528.3	622.8	654.2
75°	220.1	320.8	465.5	551.3	564.0
77.5°	161.4	262.1	400.5	429.7	431.9
80°	109.1	209.6	306.2	301.9	306.2
82.5°	71.2	157.3	192.8	216.0	218.0
85°	42.0	92.3	113.2	125.9	127.8
87.5°	20.9	31.4	39.8	42.0	46.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)