

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: P473821

Luminaire Tested: **24CZ2-40HE-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473821
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40HE-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4144.0 lumens
Efficiency: N/A
Efficacy: 135.0 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

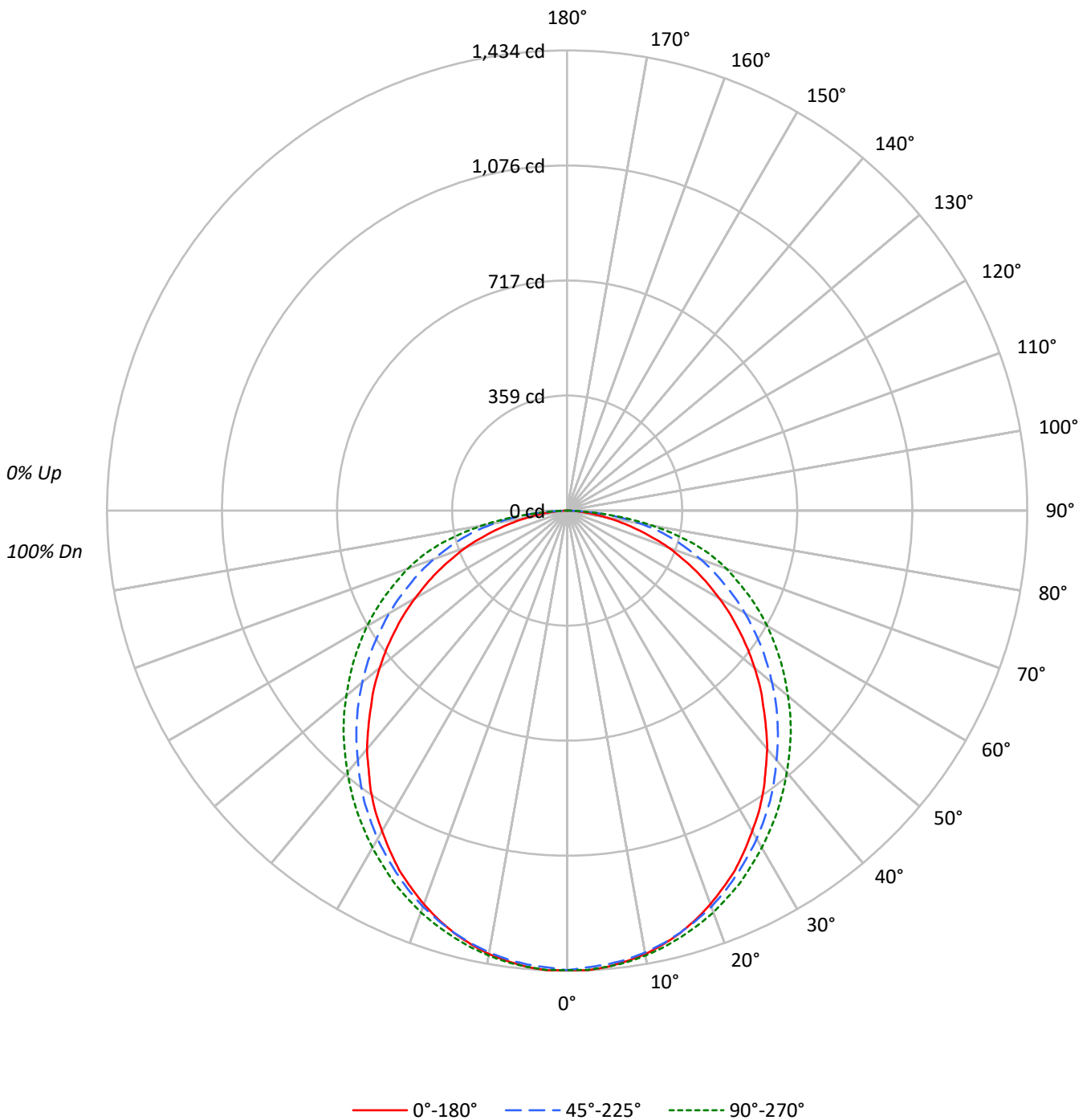
Input Watts (W): 30.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1927	1927	1927
5°	1928	1918	1928
10°	1917	1911	1924
15°	1898	1897	1915
20°	1869	1881	1907
25°	1837	1858	1898
30°	1792	1836	1885
35°	1752	1812	1877
40°	1704	1783	1870
45°	1646	1764	1875
50°	1596	1745	1881
55°	1537	1732	1902
60°	1474	1724	1937
65°	1405	1718	1986
70°	1322	1736	2078
75°	1162	1772	2161
80°	970	1784	2085
85°	693	1530	1550



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.4	3.3
10°-20°	385.6	9.3
20°-30°	578.4	14.0
30°-40°	690.6	16.7
40°-50°	715.3	17.3
50°-60°	658.5	15.9
60°-70°	531.2	12.8
70°-80°	347.1	8.4
80°-90°	101.8	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°	1099.4	26.5
0°-40°	1790.0	43.2
0°-60°	3163.9	76.3
0°-90°	4144.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4144.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1432	1432	1432	1432	1432	
5°	1427	1426	1420	1428	1427	135
15°	1362	1362	1362	1375	1375	384
25°	1237	1240	1251	1274	1279	569
35°	1066	1076	1103	1133	1143	666
45°	865	886	927	969	986	669
55°	655	684	738	793	811	587
65°	441	471	540	601	624	436
75°	224	266	341	400	416	239
85°	45	78	99	105	100	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1432.0	1432.0	1432.0	1432.0	1432.0
2.5°	1434.0	1432.0	1424.6	1433.3	1432.7
5°	1427.3	1426.0	1419.9	1428.0	1427.3
7.5°	1416.6	1415.9	1411.2	1419.9	1419.9
10°	1403.2	1401.9	1398.5	1408.6	1407.9
12.5°	1384.5	1383.8	1381.8	1393.8	1393.2
15°	1362.4	1362.4	1361.7	1375.1	1375.1
17.5°	1335.6	1336.3	1338.9	1354.3	1355.0
20°	1305.5	1308.1	1313.5	1330.9	1332.2
22.5°	1271.3	1276.7	1284.0	1303.5	1305.5
25°	1237.2	1239.9	1251.2	1274.0	1278.7
27.5°	1195.7	1202.4	1217.1	1240.5	1245.2
30°	1153.5	1162.9	1181.6	1205.7	1213.1
32.5°	1112.0	1120.0	1142.1	1169.6	1178.3
35°	1066.5	1075.8	1103.3	1133.4	1142.8
37.5°	1016.3	1031.0	1059.8	1094.6	1104.6
40°	970.1	983.4	1014.9	1053.7	1064.5
42.5°	917.2	933.9	972.1	1011.6	1025.0
45°	865.0	886.4	927.2	968.7	985.5
47.5°	816.1	833.5	881.7	928.6	943.3
50°	762.5	782.6	833.5	883.0	898.4
52.5°	709.6	733.7	785.3	837.5	854.2
55°	655.4	683.5	738.4	792.6	810.7
57.5°	603.2	631.3	688.2	745.8	764.5
60°	547.6	577.7	640.7	696.2	719.7
62.5°	494.1	524.2	590.5	650.7	672.8
65°	441.2	471.3	539.6	601.2	623.9
67.5°	386.3	419.1	492.1	551.6	573.7
70°	336.1	367.5	441.2	504.8	528.2
72.5°	278.5	316.0	391.0	453.9	476.0
75°	223.6	265.8	340.8	399.7	415.7
77.5°	172.7	214.9	289.9	334.1	344.1
80°	125.2	168.0	230.3	261.1	269.1
82.5°	81.0	125.2	166.7	187.5	190.1
85°	44.9	77.7	99.1	105.1	100.4
87.5°	16.1	29.5	28.8	23.4	18.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)