

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: P474070

Luminaire Tested: **24CZ2-35HE-S-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474070
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35HE-S-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

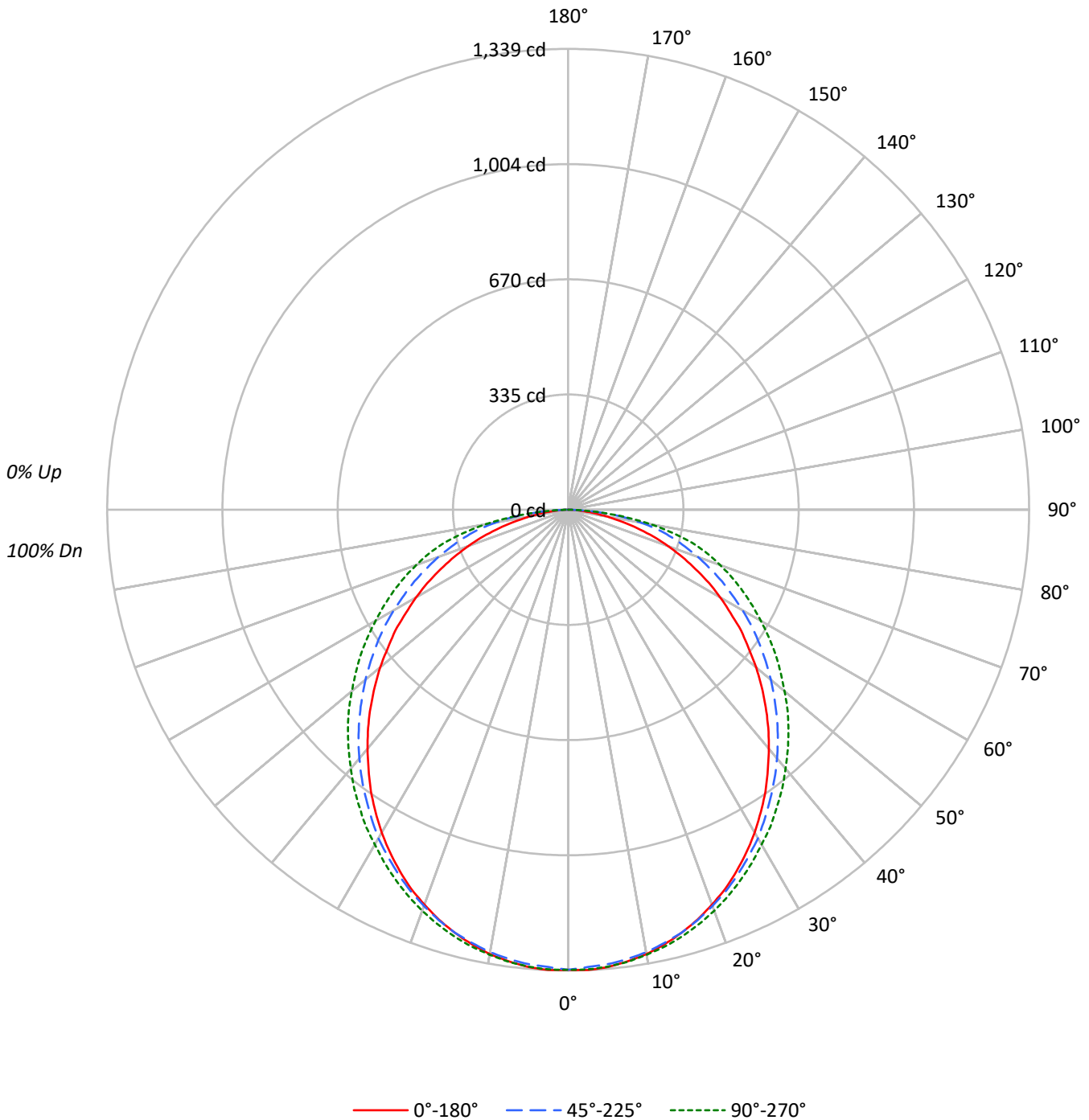
Lumens per Lamp: N/A
Luminaire Lumens: 3830.1 lumens
Efficiency: N/A
Efficacy: 141.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 27
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	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1799	1799	1799
5°	1801	1790	1800
10°	1791	1783	1794
15°	1773	1772	1787
20°	1748	1754	1775
25°	1719	1734	1761
30°	1683	1712	1745
35°	1641	1682	1735
40°	1592	1658	1725
45°	1544	1632	1721
50°	1492	1609	1717
55°	1439	1590	1727
60°	1373	1574	1739
65°	1300	1568	1781
70°	1213	1577	1844
75°	1079	1622	1943
80°	883	1657	1896
85°	622	1447	1476



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.4	3.3
10°-20°	360.0	9.4
20°-30°	539.6	14.1
30°-40°	642.7	16.8
40°-50°	662.7	17.3
50°-60°	604.7	15.8
60°-70°	483.5	12.6
70°-80°	315.8	8.2
80°-90°	94.8	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°	1026.0	26.8
0°-40°	1668.6	43.6
0°-60°	2936.0	76.7
0°-90°	3830.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3830.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1337	1337	1337	1337	1337	
5°	1334	1331	1326	1334	1332	127
15°	1273	1273	1272	1283	1283	359
25°	1158	1160	1168	1185	1186	533
35°	999	1006	1024	1050	1056	624
45°	812	826	858	893	905	626
55°	613	631	678	722	736	546
65°	408	436	493	541	559	405
75°	208	242	312	362	374	221
85°	40	72	94	96	96	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1336.9	1336.9	1336.9	1336.9	1336.9
2.5°	1338.8	1336.9	1330.0	1338.1	1336.9
5°	1333.7	1331.2	1325.6	1333.7	1332.5
7.5°	1323.7	1322.4	1316.8	1326.2	1324.9
10°	1311.1	1309.8	1305.4	1314.9	1313.0
12.5°	1293.5	1292.9	1289.7	1301.0	1299.8
15°	1272.7	1273.3	1272.1	1282.8	1282.8
17.5°	1248.8	1248.2	1250.7	1263.9	1262.7
20°	1221.1	1221.8	1224.9	1240.0	1240.0
22.5°	1192.2	1191.6	1198.5	1213.6	1214.8
25°	1158.2	1160.1	1168.3	1185.3	1186.5
27.5°	1121.7	1124.9	1134.9	1154.4	1156.3
30°	1083.4	1087.1	1102.2	1120.5	1123.0
32.5°	1041.2	1049.4	1063.2	1086.5	1092.8
35°	999.1	1006.0	1024.2	1050.0	1056.3
37.5°	952.5	963.8	984.6	1012.9	1021.1
40°	906.6	917.9	943.7	973.3	982.1
42.5°	860.0	872.0	901.5	934.9	944.3
45°	811.6	826.0	857.5	893.4	904.7
47.5°	761.9	778.9	812.8	851.8	864.4
50°	712.8	729.8	768.8	809.1	820.4
52.5°	660.0	681.3	722.9	766.3	777.6
55°	613.4	631.0	677.6	722.2	736.1
57.5°	558.7	582.6	632.3	677.6	690.8
60°	510.2	532.2	585.1	631.0	646.1
62.5°	461.1	483.8	536.6	588.9	602.7
65°	408.3	436.0	492.6	541.0	559.3
67.5°	358.0	386.9	444.8	496.4	515.3
70°	308.3	337.8	400.8	453.6	468.7
72.5°	259.2	290.0	355.5	407.0	424.7
75°	207.6	242.2	312.0	362.4	373.7
77.5°	159.2	197.5	268.0	302.0	310.2
80°	113.9	156.0	213.9	238.4	244.7
82.5°	74.9	115.8	159.8	173.0	171.1
85°	40.3	72.3	93.7	95.6	95.6
87.5°	15.7	28.9	29.6	22.6	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)