

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: P474017

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474017
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60-S-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

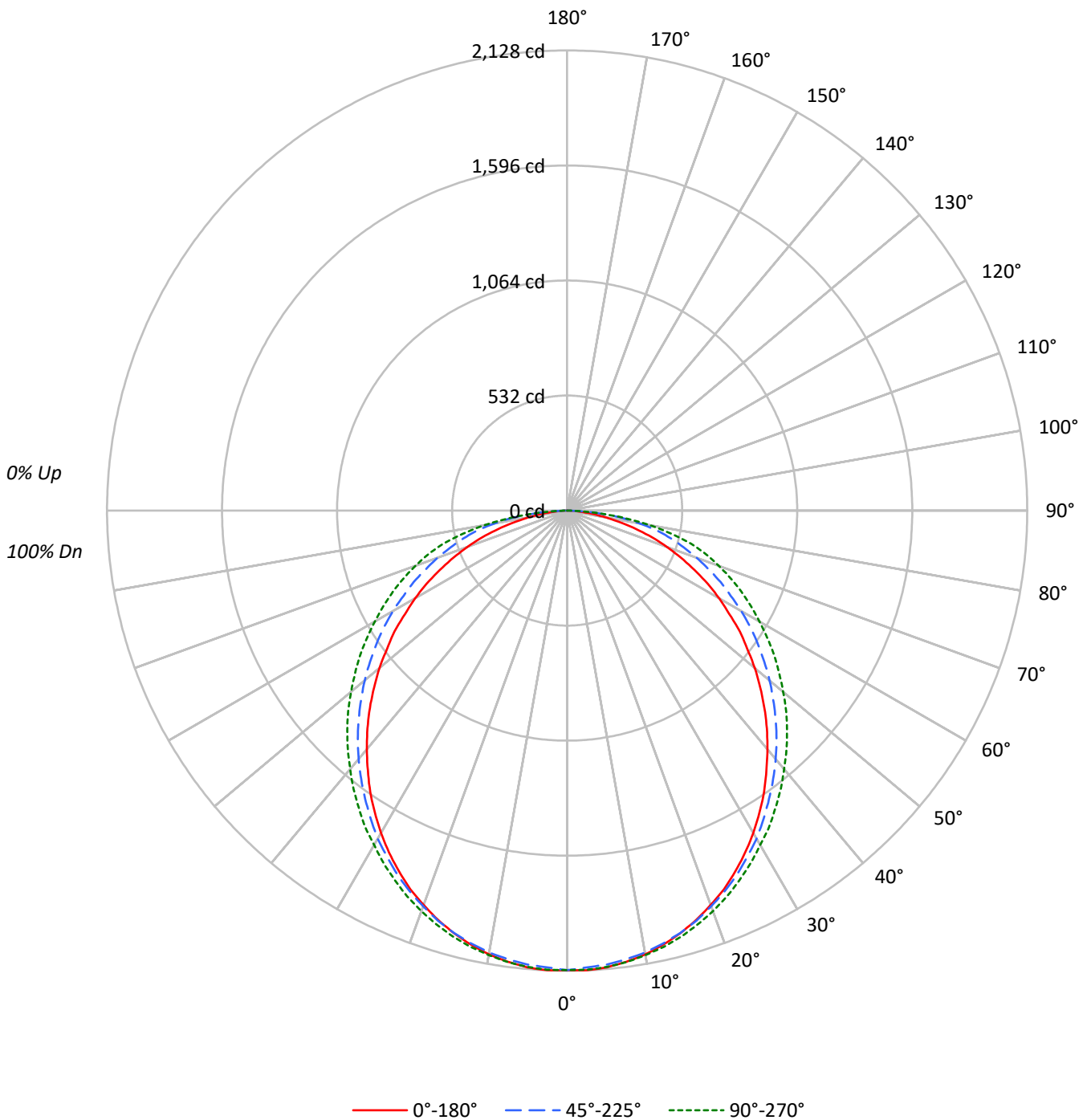
Lumens per Lamp: N/A
Luminaire Lumens: 6088.4 lumens
Efficiency: N/A
Efficacy: 131.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.3
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°	2859	2859	2859
5°	2863	2846	2861
10°	2847	2835	2851
15°	2818	2817	2840
20°	2779	2788	2822
25°	2733	2757	2800
30°	2676	2722	2773
35°	2609	2674	2758
40°	2531	2635	2742
45°	2455	2594	2736
50°	2372	2558	2730
55°	2287	2527	2745
60°	2183	2503	2764
65°	2066	2493	2831
70°	1928	2506	2931
75°	1716	2578	3088
80°	1402	2634	3014
85°	988	2300	2347



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.9	3.3
10°-20°	572.2	9.4
20°-30°	857.7	14.1
30°-40°	1021.6	16.8
40°-50°	1053.4	17.3
50°-60°	961.2	15.8
60°-70°	768.6	12.6
70°-80°	502.0	8.2
80°-90°	150.7	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°	1630.9	26.8
0°-40°	2652.5	43.6
0°-60°	4667.1	76.7
0°-90°	6088.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6088.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2125	2125	2125	2125	2125	
5°	2120	2116	2107	2120	2118	201
15°	2023	2024	2022	2039	2039	570
25°	1841	1844	1857	1884	1886	848
35°	1588	1599	1628	1669	1679	992
45°	1290	1313	1363	1420	1438	995
55°	975	1003	1077	1148	1170	868
65°	649	693	783	860	889	644
75°	330	385	496	576	594	351
85°	64	115	149	152	152	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2125.1	2125.1	2125.1	2125.1	2125.1
2.5°	2128.1	2125.1	2114.1	2127.1	2125.1
5°	2120.1	2116.1	2107.1	2120.1	2118.1
7.5°	2104.1	2102.1	2093.1	2108.1	2106.1
10°	2084.1	2082.1	2075.1	2090.1	2087.1
12.5°	2056.1	2055.1	2050.1	2068.1	2066.1
15°	2023.1	2024.1	2022.1	2039.1	2039.1
17.5°	1985.1	1984.1	1988.1	2009.1	2007.1
20°	1941.1	1942.1	1947.1	1971.1	1971.1
22.5°	1895.1	1894.1	1905.1	1929.1	1931.1
25°	1841.1	1844.1	1857.1	1884.1	1886.1
27.5°	1783.1	1788.1	1804.1	1835.1	1838.1
30°	1722.1	1728.1	1752.1	1781.1	1785.1
32.5°	1655.1	1668.1	1690.1	1727.1	1737.1
35°	1588.1	1599.1	1628.1	1669.1	1679.1
37.5°	1514.1	1532.1	1565.1	1610.1	1623.1
40°	1441.1	1459.1	1500.1	1547.1	1561.1
42.5°	1367.1	1386.1	1433.1	1486.1	1501.1
45°	1290.1	1313.1	1363.1	1420.1	1438.1
47.5°	1211.1	1238.1	1292.1	1354.1	1374.1
50°	1133.1	1160.1	1222.1	1286.1	1304.1
52.5°	1049.1	1083.1	1149.1	1218.1	1236.1
55°	975.1	1003.1	1077.1	1148.1	1170.1
57.5°	888.1	926.1	1005.1	1077.1	1098.1
60°	811.1	846.1	930.1	1003.1	1027.1
62.5°	733.0	769.0	853.1	936.1	958.1
65°	649.0	693.0	783.0	860.1	889.1
67.5°	569.0	615.0	707.0	789.0	819.1
70°	490.0	537.0	637.0	721.0	745.0
72.5°	412.0	461.0	565.0	647.0	675.0
75°	330.0	385.0	496.0	576.0	594.0
77.5°	253.0	314.0	426.0	480.0	493.0
80°	181.0	248.0	340.0	379.0	389.0
82.5°	119.0	184.0	254.0	275.0	272.0
85°	64.0	115.0	149.0	152.0	152.0
87.5°	25.0	46.0	47.0	36.0	34.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)