

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: P473776

Luminaire Tested: **24CZ2-65HE-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473776
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65HE-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6539.7 lumens
Efficiency: N/A
Efficacy: 133.7 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

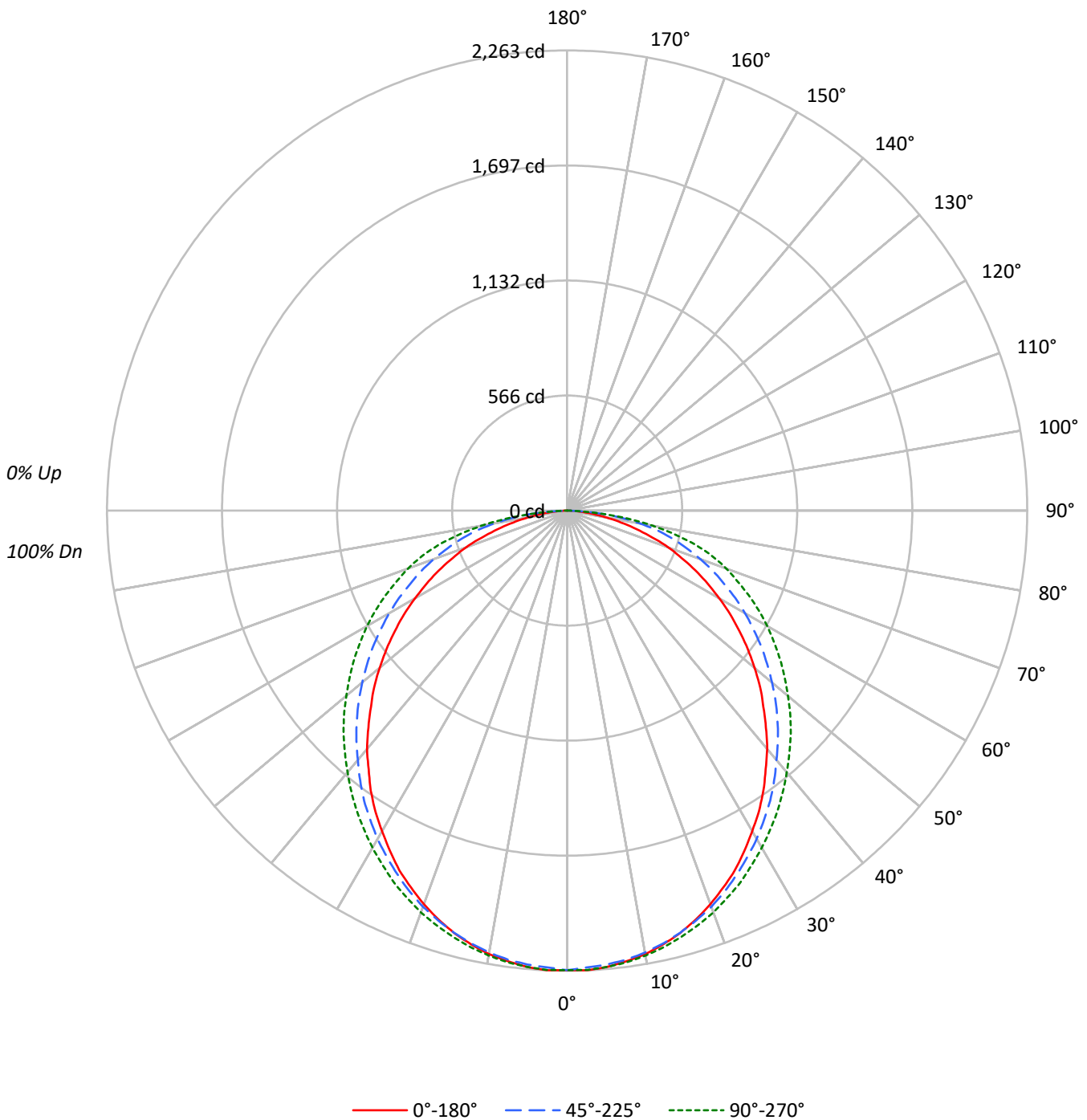
Input Watts (W): 48.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3041	3041	3041
5°	3042	3027	3042
10°	3025	3015	3036
15°	2995	2993	3023
20°	2950	2968	3010
25°	2899	2931	2996
30°	2828	2897	2974
35°	2764	2860	2962
40°	2689	2813	2951
45°	2597	2784	2959
50°	2519	2753	2968
55°	2426	2734	3001
60°	2326	2721	3056
65°	2216	2711	3135
70°	2087	2739	3279
75°	1835	2796	3411
80°	1531	2816	3291
85°	1093	2414	2447



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.6	3.3
10°-20°	608.5	9.3
20°-30°	912.9	14.0
30°-40°	1089.9	16.7
40°-50°	1128.9	17.3
50°-60°	1039.3	15.9
60°-70°	838.3	12.8
70°-80°	547.7	8.4
80°-90°	160.6	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°	1735.0	26.5
0°-40°	2824.8	43.2
0°-60°	4993.0	76.3
0°-90°	6539.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6539.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2260	2260	2260	2260	2260	
5°	2252	2250	2241	2254	2252	214
15°	2150	2150	2149	2170	2170	606
25°	1952	1957	1975	2010	2018	898
35°	1683	1698	1741	1789	1804	1051
45°	1365	1399	1463	1529	1555	1055
55°	1034	1079	1165	1251	1279	926
65°	696	744	852	949	985	688
75°	353	419	538	631	656	377
85°	71	123	156	166	158	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2259.9	2259.9	2259.9	2259.9	2259.9
2.5°	2263.0	2259.9	2248.3	2262.0	2260.9
5°	2252.5	2250.4	2240.9	2253.5	2252.5
7.5°	2235.6	2234.5	2227.1	2240.9	2240.9
10°	2214.4	2212.3	2207.1	2222.9	2221.8
12.5°	2184.9	2183.8	2180.6	2199.7	2198.6
15°	2150.0	2150.0	2148.9	2170.1	2170.1
17.5°	2107.7	2108.8	2113.0	2137.3	2138.4
20°	2060.2	2064.4	2072.9	2100.3	2102.5
22.5°	2006.3	2014.8	2026.4	2057.0	2060.2
25°	1952.4	1956.7	1974.6	2010.5	2017.9
27.5°	1886.9	1897.5	1920.7	1957.7	1965.1
30°	1820.4	1835.2	1864.7	1902.8	1914.4
32.5°	1754.9	1767.5	1802.4	1845.7	1859.5
35°	1683.0	1697.8	1741.1	1788.7	1803.5
37.5°	1603.8	1627.0	1672.5	1727.4	1743.2
40°	1530.9	1552.0	1601.7	1662.9	1679.9
42.5°	1447.4	1473.8	1534.1	1596.4	1617.5
45°	1365.0	1398.8	1463.3	1528.8	1555.2
47.5°	1287.9	1315.4	1391.4	1465.4	1488.6
50°	1203.4	1235.1	1315.4	1393.5	1417.8
52.5°	1119.9	1157.9	1239.3	1321.7	1348.1
55°	1034.3	1078.7	1165.3	1250.9	1279.4
57.5°	951.9	996.3	1086.1	1177.0	1206.5
60°	864.2	911.8	1011.1	1098.8	1135.7
62.5°	779.7	827.2	931.8	1026.9	1061.8
65°	696.2	743.8	851.5	948.7	984.7
67.5°	609.6	661.4	776.5	870.6	905.4
70°	530.4	580.0	696.2	796.6	833.6
72.5°	439.5	498.7	617.0	716.3	751.2
75°	352.9	419.4	537.8	630.7	656.1
77.5°	272.6	339.1	457.5	527.2	543.0
80°	197.6	265.2	363.4	412.0	424.7
82.5°	127.8	197.6	263.1	295.8	300.0
85°	70.8	122.6	156.4	165.9	158.5
87.5°	25.4	46.5	45.4	37.0	29.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)