

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: P272188

Luminaire Tested: **24CZ2-65-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P272188  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-65-S-UNV-L950-CD1-U  
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI  
Light Source: (112) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

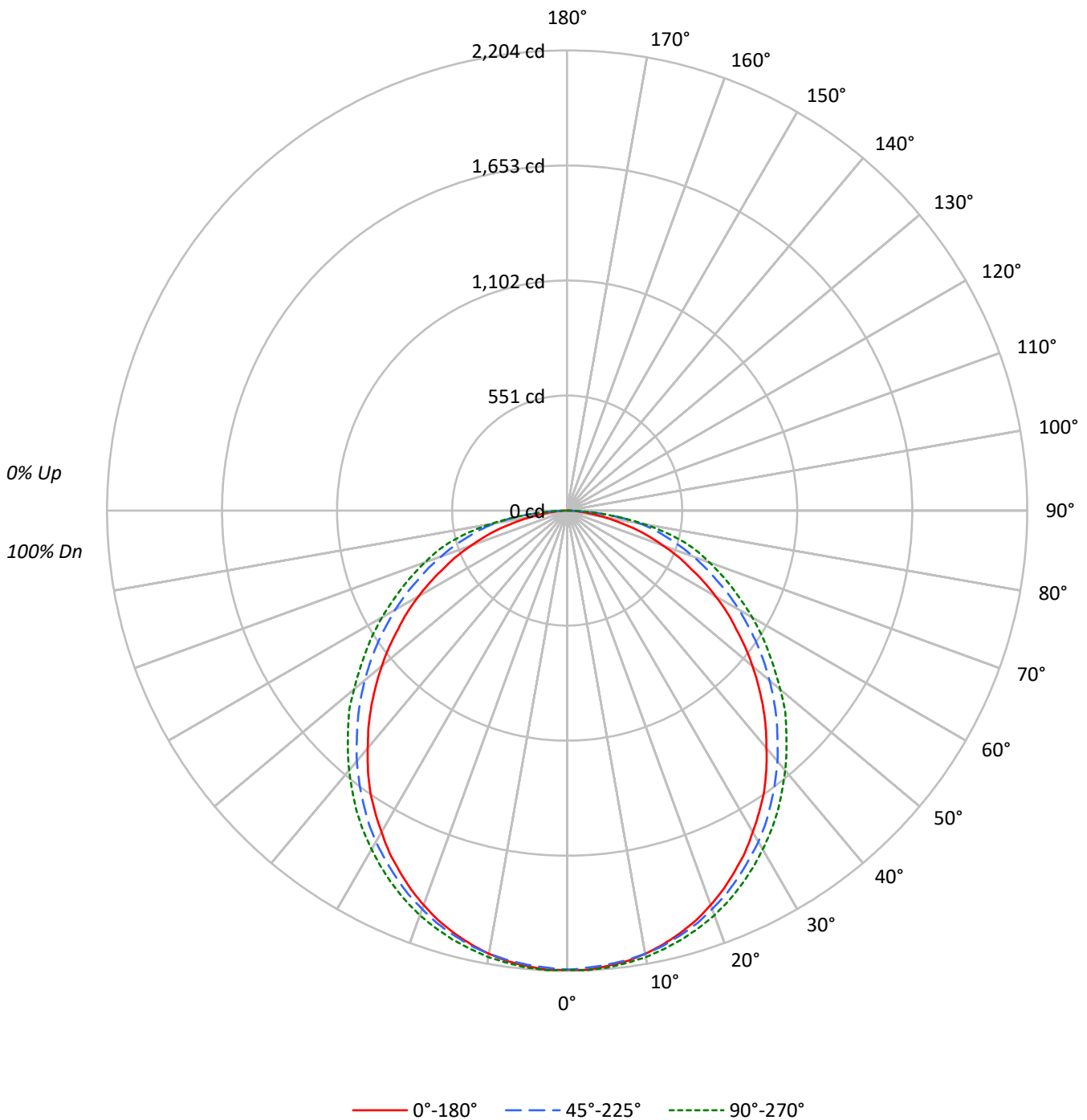
Lumens per Lamp: N/A  
Luminaire Lumens: 6261.0 lumens  
Efficiency: N/A  
Efficacy: 99.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 62.8  
Input Voltage (V): NR  
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	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2959	2959	2959
5°	2957	2949	2968
10°	2945	2945	2967
15°	2917	2931	2961
20°	2879	2907	2953
25°	2825	2879	2935
30°	2762	2846	2911
35°	2701	2799	2888
40°	2609	2752	2854
45°	2524	2698	2823
50°	2427	2647	2789
55°	2319	2598	2762
60°	2210	2558	2756
65°	2070	2514	2773
70°	1917	2527	2848
75°	1716	2574	3008
80°	1387	2727	2943
85°	1044	2394	2333



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	208.2	3.3
10°-20°	595.0	9.5
20°-30°	894.4	14.3
30°-40°	1065.4	17.0
40°-50°	1090.4	17.4
50°-60°	981.6	15.7
60°-70°	770.9	12.3
70°-80°	500.3	8.0
80°-90°	154.7	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°	1697.6	27.1
0°-40°	2763.0	44.1
0°-60°	4835.0	77.2
0°-90°	6261.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6261.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2200	2200	2200	2200	2200	
5°	2190	2194	2184	2196	2198	208
15°	2094	2100	2104	2122	2126	590
25°	1903	1919	1939	1971	1977	877
35°	1645	1665	1704	1746	1758	1026
45°	1326	1358	1418	1472	1484	1023
55°	988	1032	1108	1165	1177	886
65°	650	700	790	855	871	647
75°	330	394	495	563	579	349
85°	68	125	155	151	151	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2199.5	2199.5	2199.5	2199.5	2199.5
2.5°	2201.5	2201.5	2191.6	2201.5	2203.5
5°	2189.6	2193.6	2183.6	2195.6	2197.5
7.5°	2177.7	2177.7	2171.7	2183.6	2185.6
10°	2155.8	2157.8	2155.8	2169.7	2171.7
12.5°	2127.9	2131.9	2133.9	2147.8	2149.8
15°	2094.1	2100.1	2104.1	2122.0	2125.9
17.5°	2056.3	2062.3	2072.3	2092.1	2096.1
20°	2010.6	2018.6	2030.5	2056.3	2062.3
22.5°	1960.9	1968.8	1988.7	2012.6	2022.5
25°	1903.2	1919.1	1939.0	1970.8	1976.8
27.5°	1845.5	1859.5	1885.3	1919.1	1927.1
30°	1777.9	1799.8	1831.6	1865.4	1873.4
32.5°	1712.3	1734.2	1772.0	1807.8	1817.7
35°	1644.7	1664.6	1704.3	1746.1	1758.0
37.5°	1567.1	1593.0	1636.7	1678.5	1690.4
40°	1485.6	1517.4	1567.1	1610.9	1624.8
42.5°	1408.0	1441.8	1491.5	1539.3	1555.2
45°	1326.5	1358.3	1418.0	1471.7	1483.6
47.5°	1243.0	1278.8	1342.4	1396.1	1416.0
50°	1159.4	1197.2	1264.8	1320.5	1332.4
52.5°	1075.9	1115.7	1187.3	1246.9	1252.9
55°	988.4	1032.1	1107.7	1165.4	1177.3
57.5°	908.8	946.6	1028.2	1087.8	1101.8
60°	821.3	863.1	950.6	1006.3	1024.2
62.5°	737.8	781.6	873.1	928.7	944.6
65°	650.3	700.0	789.5	855.2	871.1
67.5°	574.7	622.5	717.9	781.6	797.5
70°	487.2	540.9	642.4	708.0	723.9
72.5°	411.7	467.4	568.8	632.4	656.3
75°	330.1	393.8	495.2	562.8	578.7
77.5°	250.6	324.2	427.6	479.3	479.3
80°	179.0	256.5	352.0	375.9	379.8
82.5°	117.3	192.9	260.5	258.5	258.5
85°	67.6	125.3	155.1	151.1	151.1
87.5°	25.9	51.7	55.7	55.7	53.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)