

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: P272112

Luminaire Tested: **24CZ2-65HE-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: P272112  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-65HE-UNV-L950-CD1-U  
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI  
Light Source: (392) 5000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5976.0 lumens  
Efficiency: N/A  
Efficacy: 122.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

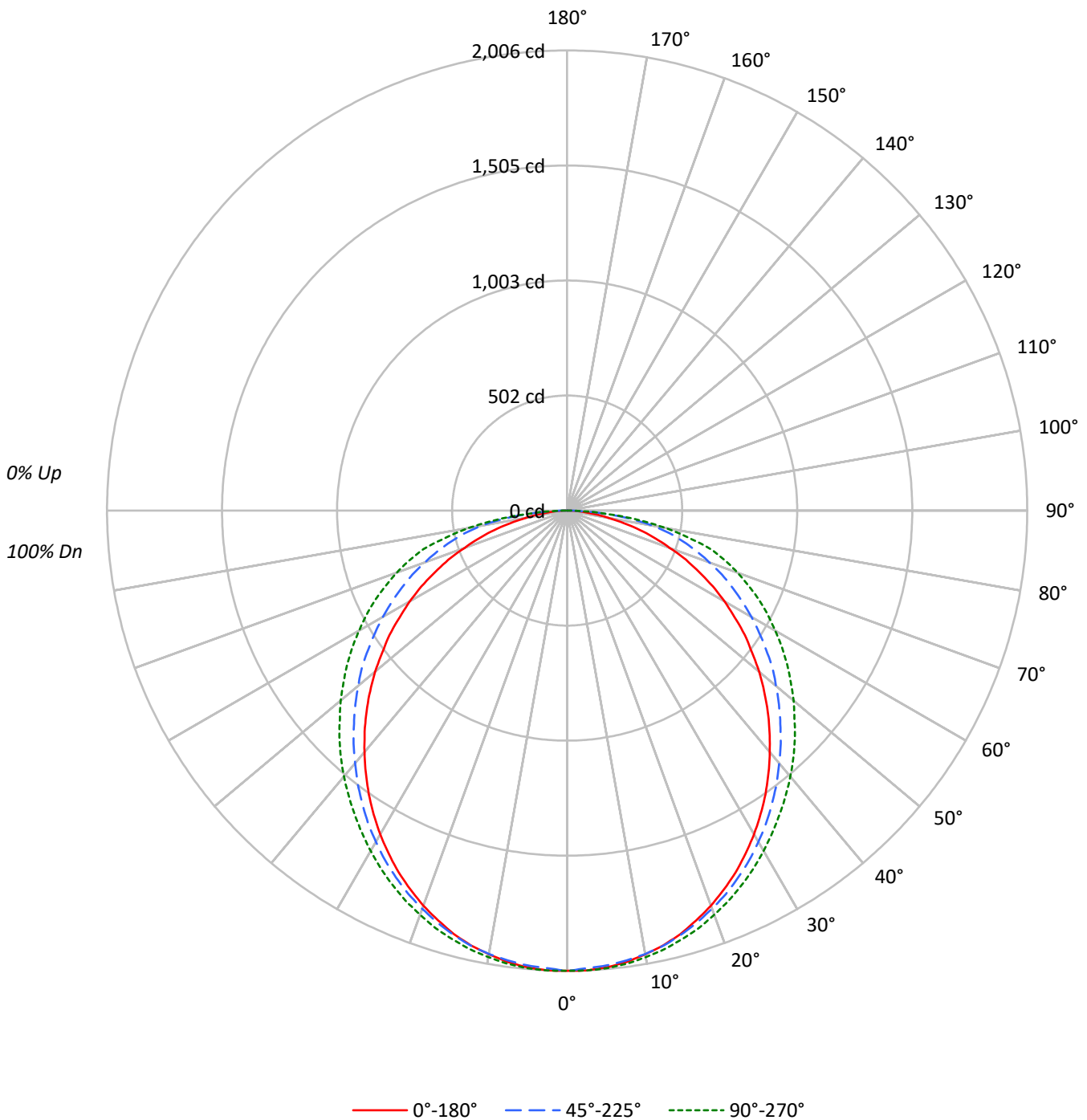
Input Watts (W): 48.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	2700	2700	2700
5°	2699	2688	2704
10°	2684	2681	2700
15°	2662	2667	2695
20°	2624	2644	2684
25°	2582	2620	2674
30°	2532	2591	2662
35°	2477	2559	2654
40°	2414	2526	2659
45°	2353	2501	2672
50°	2288	2488	2697
55°	2218	2484	2746
60°	2131	2496	2818
65°	2019	2534	2940
70°	1875	2597	3107
75°	1711	2727	3370
80°	1406	2936	3369
85°	1078	2709	2895



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.8	3.2
10°-20°	541.7	9.1
20°-30°	815.2	13.6
30°-40°	977.0	16.3
40°-50°	1018.1	17.0
50°-60°	947.2	15.9
60°-70°	780.2	13.1
70°-80°	531.3	8.9
80°-90°	175.4	2.9
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°	1546.8	25.9
0°-40°	2523.7	42.2
0°-60°	4489.1	75.1
0°-90°	5976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5976.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2006	2006	2006	2006	2006	
5°	1998	1998	1990	2000	2002	190
15°	1911	1913	1915	1933	1935	538
25°	1739	1747	1765	1795	1801	801
35°	1508	1526	1558	1600	1616	943
45°	1237	1262	1314	1380	1404	954
55°	945	977	1059	1143	1171	843
65°	634	688	796	890	923	630
75°	329	403	524	618	648	347
85°	70	136	176	188	188	87
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2006.4	2006.4	2006.4	2006.4	2006.4
2.5°	2006.4	2006.4	1996.4	2006.4	2006.4
5°	1998.4	1998.4	1990.5	2000.4	2002.4
7.5°	1984.5	1986.5	1978.5	1990.5	1992.5
10°	1964.5	1966.5	1962.5	1974.5	1976.5
12.5°	1940.6	1942.6	1942.6	1956.6	1958.6
15°	1910.7	1912.7	1914.7	1932.6	1934.6
17.5°	1872.8	1878.8	1882.8	1904.7	1908.7
20°	1832.9	1838.9	1846.9	1870.8	1874.8
22.5°	1787.0	1795.0	1809.0	1834.9	1840.9
25°	1739.2	1747.1	1765.1	1795.0	1801.0
27.5°	1685.3	1697.3	1719.2	1751.1	1759.1
30°	1629.5	1641.4	1667.4	1701.3	1713.2
32.5°	1569.6	1585.6	1615.5	1653.4	1665.4
35°	1507.8	1525.8	1557.7	1599.6	1615.5
37.5°	1442.0	1461.9	1499.8	1545.7	1565.6
40°	1374.2	1398.1	1438.0	1491.9	1513.8
42.5°	1306.4	1328.3	1378.2	1436.0	1459.9
45°	1236.6	1262.5	1314.3	1380.2	1404.1
47.5°	1164.8	1190.7	1252.5	1322.3	1344.3
50°	1093.0	1118.9	1188.7	1262.5	1288.4
52.5°	1015.2	1049.1	1128.9	1202.7	1228.6
55°	945.4	977.3	1059.1	1142.8	1170.7
57.5°	865.6	903.5	993.2	1081.0	1110.9
60°	791.8	831.7	927.4	1017.2	1047.1
62.5°	716.0	759.9	861.6	953.3	987.3
65°	634.2	688.1	795.8	889.5	923.4
67.5°	560.4	616.3	730.0	825.7	855.6
70°	476.7	544.5	660.2	755.9	789.8
72.5°	404.9	472.7	594.3	688.1	722.0
75°	329.1	402.9	524.5	618.3	648.2
77.5°	253.3	335.1	456.7	528.5	538.5
80°	181.5	267.3	378.9	420.8	434.8
82.5°	127.6	205.4	279.2	307.1	315.1
85°	69.8	135.6	175.5	187.5	187.5
87.5°	29.9	57.8	69.8	71.8	73.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)