

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: P272187

Luminaire Tested: **24CZ2-65-S-UNV-L940-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: P272187
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-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (112) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

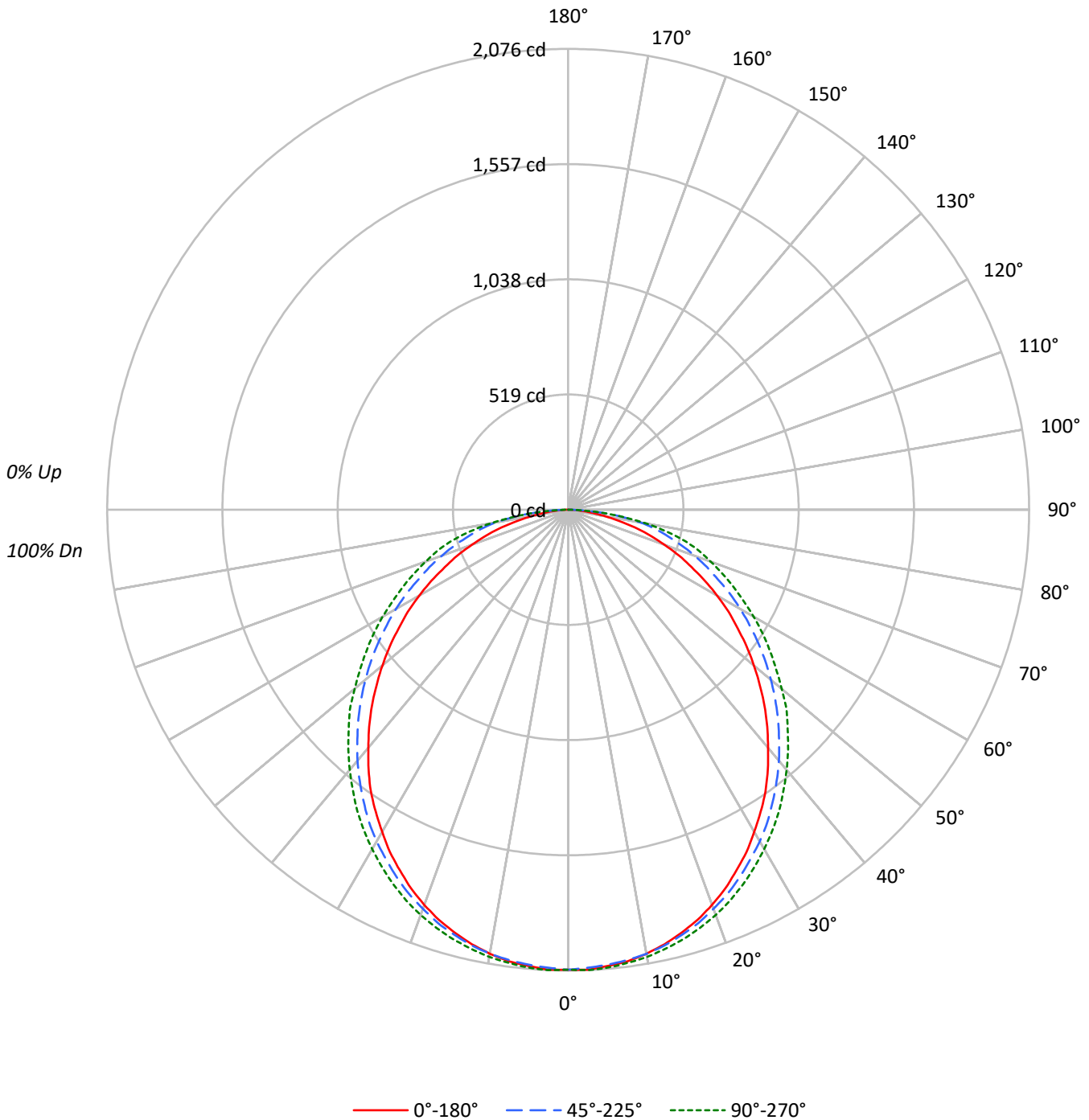
Lumens per Lamp: N/A
Luminaire Lumens: 5899.0 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P272187
CATALOG NUMBER: 24CZ2-65-S-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P272187

CATALOG NUMBER: 24CZ2-65-S-UNV-L940-CD1-U

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°	2788	2788	2788
5°	2786	2779	2796
10°	2775	2775	2795
15°	2748	2761	2790
20°	2712	2739	2782
25°	2662	2712	2765
30°	2602	2681	2742
35°	2545	2638	2721
40°	2458	2593	2689
45°	2378	2542	2660
50°	2287	2494	2628
55°	2184	2448	2602
60°	2083	2410	2597
65°	1951	2368	2613
70°	1806	2381	2683
75°	1617	2426	2835
80°	1306	2570	2773
85°	983	2257	2198



TEST NUMBER: P272187

CATALOG NUMBER: 24CZ2-65-S-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.2	3.3
10°-20°	560.6	9.5
20°-30°	842.7	14.3
30°-40°	1003.8	17.0
40°-50°	1027.3	17.4
50°-60°	924.9	15.7
60°-70°	726.3	12.3
70°-80°	471.4	8.0
80°-90°	145.8	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°	1599.5	27.1
0°-40°	2603.2	44.1
0°-60°	4555.5	77.2
0°-90°	5899.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5899.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2072	2072	2072	2072	2072	
5°	2063	2067	2057	2069	2070	196
15°	1973	1979	1982	1999	2003	556
25°	1793	1808	1827	1857	1862	826
35°	1550	1568	1606	1645	1656	967
45°	1250	1280	1336	1387	1398	964
55°	931	972	1044	1098	1109	835
65°	613	660	744	806	821	610
75°	311	371	467	530	545	329
85°	64	118	146	142	142	77
90°	0	0	0	0	0	



TEST NUMBER: P272187

CATALOG NUMBER: 24CZ2-65-S-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2072.4	2072.4	2072.4	2072.4	2072.4
2.5°	2074.2	2074.2	2064.9	2074.2	2076.1
5°	2063.0	2066.7	2057.4	2068.6	2070.5
7.5°	2051.7	2051.7	2046.1	2057.4	2059.2
10°	2031.1	2033.0	2031.1	2044.3	2046.1
12.5°	2004.9	2008.7	2010.5	2023.6	2025.5
15°	1973.0	1978.7	1982.4	1999.3	2003.0
17.5°	1937.4	1943.1	1952.4	1971.2	1974.9
20°	1894.4	1901.8	1913.1	1937.4	1943.1
22.5°	1847.5	1855.0	1873.7	1896.2	1905.6
25°	1793.2	1808.2	1826.9	1856.9	1862.5
27.5°	1738.8	1751.9	1776.3	1808.2	1815.7
30°	1675.1	1695.7	1725.7	1757.6	1765.1
32.5°	1613.3	1633.9	1669.5	1703.2	1712.6
35°	1549.6	1568.3	1605.8	1645.1	1656.4
37.5°	1476.5	1500.9	1542.1	1581.4	1592.7
40°	1399.7	1429.7	1476.5	1517.7	1530.8
42.5°	1326.6	1358.5	1405.3	1450.3	1465.3
45°	1249.8	1279.8	1336.0	1386.6	1397.8
47.5°	1171.1	1204.8	1264.8	1315.4	1334.1
50°	1092.4	1128.0	1191.7	1244.2	1255.4
52.5°	1013.7	1051.2	1118.6	1174.8	1180.5
55°	931.2	972.5	1043.7	1098.0	1109.3
57.5°	856.3	891.9	968.7	1024.9	1038.1
60°	773.9	813.2	895.6	948.1	965.0
62.5°	695.2	736.4	822.6	875.0	890.0
65°	612.7	659.6	743.9	805.7	820.7
67.5°	541.5	586.5	676.4	736.4	751.4
70°	459.1	509.7	605.2	667.1	682.0
72.5°	387.9	440.3	535.9	595.8	618.3
75°	311.0	371.0	466.6	530.3	545.3
77.5°	236.1	305.4	402.9	451.6	451.6
80°	168.6	241.7	331.7	354.1	357.9
82.5°	110.6	181.8	245.5	243.6	243.6
85°	63.7	118.0	146.2	142.4	142.4
87.5°	24.4	48.7	52.5	52.5	50.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)