

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: P274826

Luminaire Tested: **24CZ2-60HE-RDP-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: P274826
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60HE-RDP-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 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: 3666.0 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

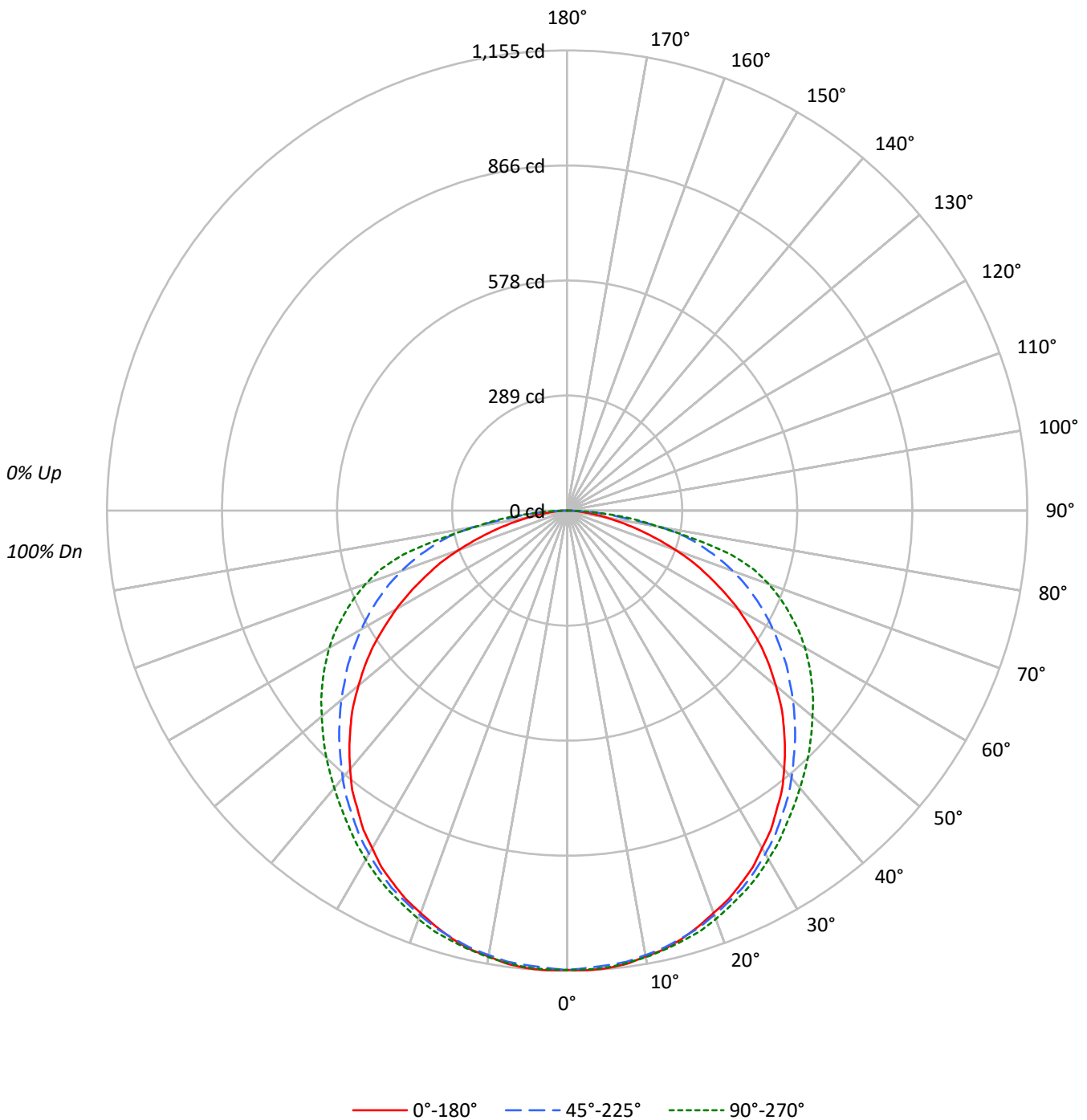
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1551	1551	1551
5°	1557	1547	1555
10°	1553	1548	1555
15°	1550	1548	1558
20°	1539	1547	1562
25°	1533	1549	1566
30°	1520	1545	1571
35°	1505	1541	1577
40°	1488	1539	1597
45°	1464	1540	1633
50°	1431	1549	1682
55°	1395	1574	1757
60°	1336	1605	1855
65°	1251	1662	1968
70°	1137	1738	2117
75°	964	1834	2212
80°	761	1846	1789
85°	562	1403	1572



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.4	3.0
10°-20°	314.7	8.6
20°-30°	481.3	13.1
30°-40°	588.4	16.0
40°-50°	627.1	17.1
50°-60°	599.6	16.4
60°-70°	507.9	13.9
70°-80°	341.4	9.3
80°-90°	96.3	2.6
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°	905.4	24.7
0°-40°	1493.8	40.7
0°-60°	2720.4	74.2
0°-90°	3666.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3666.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1153	1153	1153	1153	1153	
5°	1153	1151	1146	1151	1151	110
15°	1113	1113	1111	1120	1118	314
25°	1033	1036	1044	1053	1055	476
35°	916	924	938	956	960	574
45°	769	782	809	844	858	593
55°	595	616	671	724	749	530
65°	393	433	522	591	618	390
75°	186	253	353	413	426	199
85°	36	75	91	98	102	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1152.9	1152.9	1152.9	1152.9	1152.9
2.5°	1154.7	1154.7	1149.2	1152.9	1152.9
5°	1152.9	1151.0	1145.6	1151.0	1151.0
7.5°	1147.4	1145.6	1141.9	1147.4	1145.6
10°	1136.5	1136.5	1132.9	1138.3	1138.3
12.5°	1127.4	1125.6	1123.8	1131.0	1129.2
15°	1112.8	1112.8	1111.0	1120.1	1118.3
17.5°	1094.7	1096.5	1098.3	1105.6	1107.4
20°	1074.7	1078.3	1080.1	1091.0	1091.0
22.5°	1056.5	1058.3	1061.9	1072.8	1072.8
25°	1032.8	1036.5	1043.7	1052.8	1054.7
27.5°	1009.2	1011.0	1020.1	1032.8	1034.7
30°	978.3	983.7	994.7	1009.2	1011.0
32.5°	951.0	956.5	969.2	983.7	987.4
35°	916.5	923.7	938.3	956.5	960.1
37.5°	885.6	891.0	909.2	929.2	934.6
40°	847.4	858.3	876.5	900.1	909.2
42.5°	809.2	820.1	841.9	872.8	883.7
45°	769.2	781.9	809.2	843.7	858.3
47.5°	729.2	743.7	774.6	814.6	831.0
50°	683.7	701.9	740.1	785.5	803.7
52.5°	640.1	661.9	703.7	754.6	778.3
55°	594.6	616.4	671.0	723.7	749.2
57.5°	543.7	572.8	632.8	692.8	720.1
60°	496.4	523.7	596.4	661.9	689.2
62.5°	445.5	481.9	560.1	629.2	656.4
65°	392.8	432.8	521.9	591.0	618.2
67.5°	345.5	389.1	483.7	552.8	580.1
70°	289.1	343.7	441.9	511.0	538.2
72.5°	236.4	296.4	398.2	465.5	491.0
75°	185.5	252.8	352.8	412.8	425.5
77.5°	138.2	209.1	305.5	330.9	321.9
80°	98.2	167.3	238.2	225.5	230.9
82.5°	63.6	127.3	147.3	167.3	172.7
85°	36.4	74.6	90.9	98.2	101.8
87.5°	16.4	27.3	36.4	36.4	34.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)