

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: P274845

Luminaire Tested: **24CZ2-75HE-RDP-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: P274845  
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: 24CZ2-75HE-RDP-UNV-L940-CD1-U  
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS WITH INSERT, 90CRI  
Light Source: (392) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4350.0 lumens  
Efficiency: N/A  
Efficacy: 78.5 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

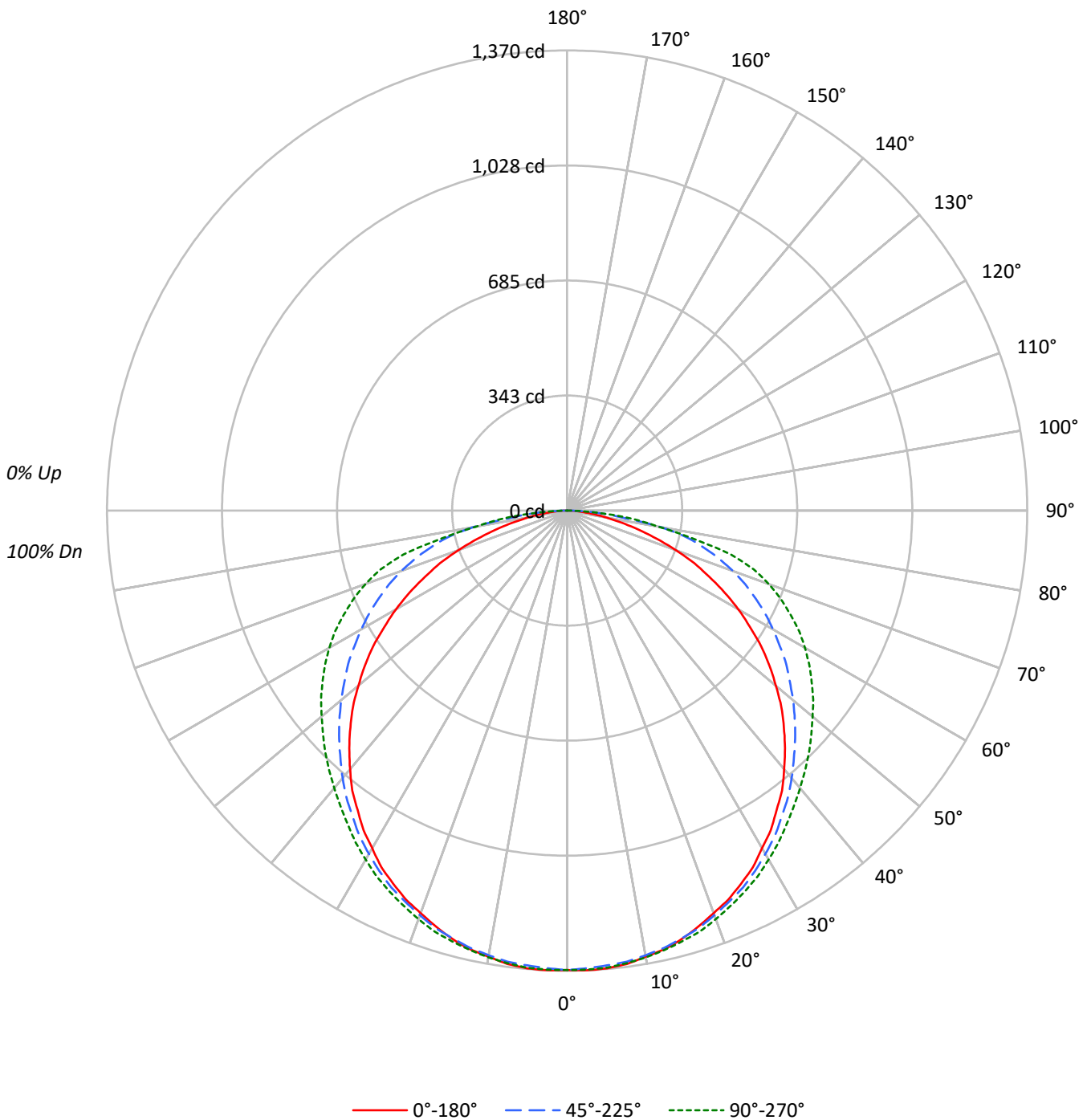
Input Watts (W): 55.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1841	1841	1841
5°	1848	1836	1845
10°	1842	1837	1845
15°	1839	1836	1848
20°	1826	1835	1854
25°	1819	1839	1858
30°	1803	1834	1864
35°	1786	1829	1871
40°	1766	1827	1895
45°	1737	1827	1938
50°	1698	1838	1996
55°	1655	1868	2085
60°	1585	1904	2200
65°	1484	1971	2336
70°	1350	2063	2513
75°	1144	2176	2625
80°	903	2190	2123
85°	667	1666	1865



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.8	3.0
10°-20°	373.5	8.6
20°-30°	571.1	13.1
30°-40°	698.1	16.0
40°-50°	744.1	17.1
50°-60°	711.5	16.4
60°-70°	602.7	13.9
70°-80°	405.1	9.3
80°-90°	114.3	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°	1074.3	24.7
0°-40°	1772.5	40.7
0°-60°	3228.0	74.2
0°-90°	4350.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4350.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1368	1368	1368	1368	1368	
5°	1368	1366	1359	1366	1366	130
15°	1320	1320	1318	1329	1327	372
25°	1226	1230	1238	1249	1251	565
35°	1088	1096	1113	1135	1139	681
45°	913	928	960	1001	1018	704
55°	706	731	796	859	889	628
65°	466	514	619	701	734	463
75°	220	300	419	490	505	236
85°	43	88	108	116	121	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1368.0	1368.0	1368.0	1368.0	1368.0
2.5°	1370.1	1370.1	1363.6	1368.0	1368.0
5°	1368.0	1365.8	1359.3	1365.8	1365.8
7.5°	1361.5	1359.3	1355.0	1361.5	1359.3
10°	1348.5	1348.5	1344.2	1350.7	1350.7
12.5°	1337.7	1335.6	1333.4	1342.1	1339.9
15°	1320.5	1320.5	1318.3	1329.1	1327.0
17.5°	1298.9	1301.1	1303.2	1311.9	1314.0
20°	1275.2	1279.5	1281.6	1294.6	1294.6
22.5°	1253.6	1255.8	1260.1	1273.0	1273.0
25°	1225.5	1229.9	1238.5	1249.3	1251.4
27.5°	1197.5	1199.7	1210.4	1225.5	1227.7
30°	1160.8	1167.3	1180.2	1197.5	1199.7
32.5°	1128.5	1134.9	1150.0	1167.3	1171.6
35°	1087.5	1096.1	1113.3	1134.9	1139.2
37.5°	1050.8	1057.2	1078.8	1102.6	1109.0
40°	1005.5	1018.4	1040.0	1068.0	1078.8
42.5°	960.2	973.1	999.0	1035.7	1048.6
45°	912.7	927.8	960.2	1001.2	1018.4
47.5°	865.2	882.5	919.2	966.6	986.0
50°	811.3	832.9	878.2	932.1	953.7
52.5°	759.5	785.4	835.0	895.4	923.5
55°	705.6	731.4	796.2	858.7	889.0
57.5°	645.1	679.7	750.9	822.1	854.4
60°	589.0	621.4	707.7	785.4	817.7
62.5°	528.6	571.8	664.6	746.5	778.9
65°	466.1	513.5	619.2	701.2	733.6
67.5°	410.0	461.7	573.9	655.9	688.3
70°	343.1	407.8	524.3	606.3	638.7
72.5°	280.5	351.7	472.5	552.4	582.6
75°	220.1	299.9	418.6	489.8	504.9
77.5°	164.0	248.1	362.5	392.7	381.9
80°	116.5	198.5	282.7	267.5	274.0
82.5°	75.5	151.0	174.8	198.5	205.0
85°	43.2	88.5	107.9	116.5	120.8
87.5°	19.4	32.4	43.2	43.2	41.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)