

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: P474478

Luminaire Tested: **24CZ2-75HE-HRP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474478
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75HE-HRP-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6428.2 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

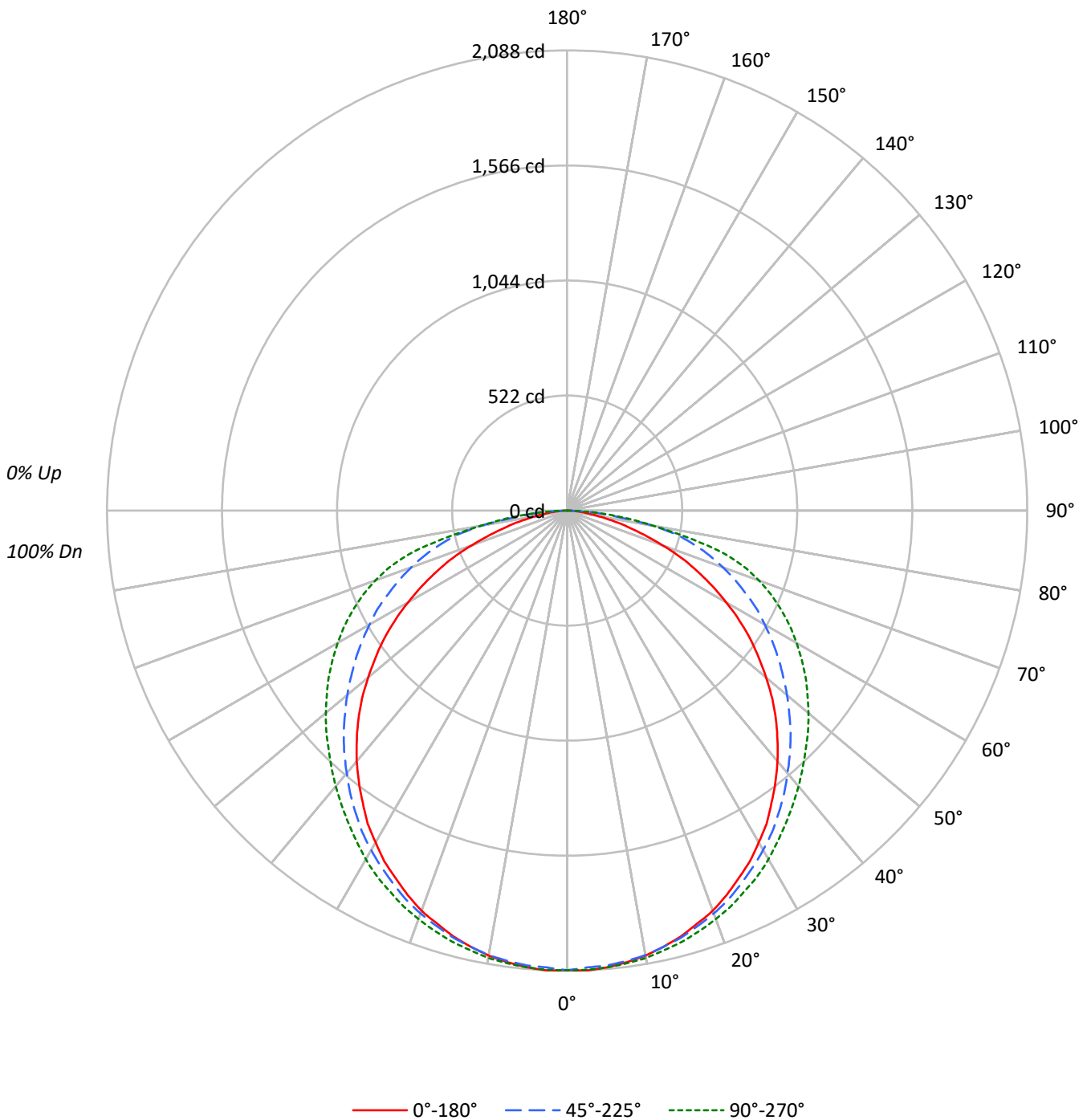
Input Watts (W): 55.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	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	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2806	2806	2806
5°	2810	2799	2810
10°	2802	2798	2816
15°	2785	2793	2819
20°	2767	2786	2825
25°	2733	2773	2829
30°	2701	2764	2839
35°	2657	2749	2842
40°	2609	2732	2869
45°	2550	2729	2914
50°	2467	2727	2991
55°	2380	2746	3100
60°	2245	2788	3237
65°	2074	2854	3419
70°	1810	2953	3642
75°	1469	3106	3763
80°	1085	3045	3045
85°	832	2243	2533



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.6	3.1
10°-20°	567.4	8.8
20°-30°	863.7	13.4
30°-40°	1048.8	16.3
40°-50°	1108.0	17.2
50°-60°	1045.6	16.3
60°-70°	869.3	13.5
70°-80°	571.9	8.9
80°-90°	155.9	2.4
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°	1628.7	25.3
0°-40°	2677.5	41.7
0°-60°	4831.0	75.2
0°-90°	6428.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6428.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2086	2086	2086	2086	2086	
5°	2080	2080	2072	2080	2080	198
15°	2000	2002	2005	2024	2024	564
25°	1841	1851	1868	1900	1905	849
35°	1618	1636	1674	1717	1730	1012
45°	1340	1367	1434	1504	1531	1032
55°	1014	1058	1171	1281	1321	904
65°	651	727	896	1028	1074	644
75°	283	412	597	708	724	304
85°	54	118	145	162	164	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2085.6	2085.6	2085.6	2085.6	2085.6
2.5°	2088.4	2085.6	2074.9	2085.6	2085.6
5°	2080.4	2080.4	2072.1	2080.4	2080.4
7.5°	2066.8	2066.8	2061.3	2072.1	2072.1
10°	2050.6	2050.6	2048.1	2061.3	2061.3
12.5°	2026.5	2029.0	2026.5	2042.5	2042.5
15°	1999.5	2002.2	2005.0	2023.8	2023.8
17.5°	1964.7	1969.9	1975.4	1996.7	1999.5
20°	1932.3	1934.8	1945.6	1969.9	1972.7
22.5°	1889.2	1897.3	1910.8	1934.8	1943.1
25°	1840.6	1851.4	1867.7	1900.0	1905.3
27.5°	1795.1	1803.1	1824.6	1859.7	1870.5
30°	1738.4	1752.0	1778.8	1813.8	1827.4
32.5°	1684.6	1698.1	1730.4	1768.0	1778.8
35°	1617.5	1636.2	1673.8	1716.9	1730.4
37.5°	1552.8	1571.6	1617.5	1665.8	1682.1
40°	1485.4	1507.0	1555.6	1611.9	1633.5
42.5°	1412.8	1442.3	1496.2	1558.1	1582.4
45°	1340.2	1367.2	1434.3	1504.2	1531.3
47.5°	1262.3	1294.6	1367.2	1450.6	1482.9
50°	1178.8	1219.2	1302.6	1394.0	1429.1
52.5°	1095.4	1141.0	1235.2	1337.4	1375.2
55°	1014.5	1057.6	1170.6	1281.0	1321.4
57.5°	925.8	979.7	1103.4	1221.7	1262.3
60°	834.1	893.5	1036.0	1159.8	1202.9
62.5°	742.7	810.1	971.4	1095.4	1141.0
65°	651.3	726.7	896.3	1028.0	1073.9
67.5°	562.4	645.8	826.1	958.2	1003.7
70°	460.2	565.1	750.7	880.0	925.8
72.5°	366.0	487.2	678.1	799.3	839.7
75°	282.6	411.8	597.4	707.6	723.9
77.5°	207.2	336.4	514.0	551.6	554.3
80°	140.0	269.0	393.0	387.5	393.0
82.5°	91.4	201.9	247.5	277.3	279.8
85°	53.9	118.5	145.3	161.6	164.1
87.5°	26.8	40.3	51.1	53.9	59.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)