

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: P473887

Luminaire Tested: **24CZ2-60VHE-UNV-L840-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P473887  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-60VHE-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

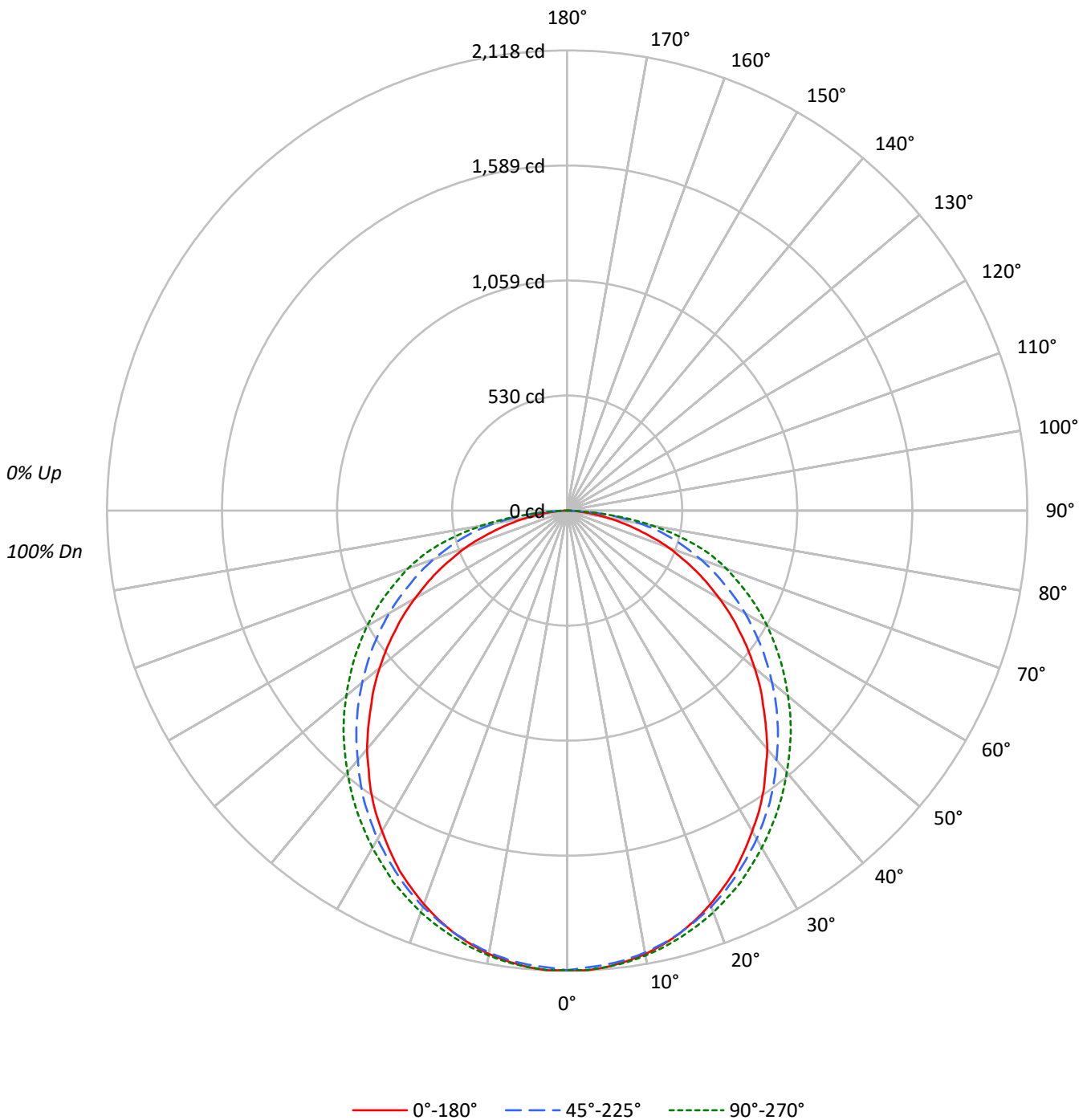
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6121.0 lumens  
Efficiency: N/A  
Efficacy: 150.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 40.7  
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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

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

	0°	45°	90°
0°	2846	2846	2846
5°	2848	2833	2848
10°	2832	2822	2841
15°	2803	2802	2829
20°	2761	2778	2818
25°	2713	2744	2804
30°	2647	2712	2784
35°	2587	2677	2773
40°	2517	2633	2762
45°	2431	2606	2770
50°	2358	2577	2778
55°	2271	2559	2809
60°	2177	2547	2861
65°	2075	2537	2934
70°	1953	2564	3069
75°	1717	2616	3192
80°	1433	2636	3080
85°	1024	2260	2289



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	200.0	3.3
10°-20°	569.5	9.3
20°-30°	854.4	14.0
30°-40°	1020.1	16.7
40°-50°	1056.6	17.3
50°-60°	972.7	15.9
60°-70°	784.7	12.8
70°-80°	512.7	8.4
80°-90°	150.3	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°	1623.9	26.5
0°-40°	2644.0	43.2
0°-60°	4673.4	76.3
0°-90°	6121.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6121.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2115	2115	2115	2115	2115	
5°	2108	2106	2097	2109	2108	200
15°	2012	2012	2011	2031	2031	567
25°	1827	1831	1848	1882	1889	840
35°	1575	1589	1630	1674	1688	984
45°	1278	1309	1370	1431	1456	988
55°	968	1010	1091	1171	1198	866
65°	652	696	797	888	922	644
75°	330	393	503	590	614	353
85°	66	115	146	155	148	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2115.2	2115.2	2115.2	2115.2	2115.2
2.5°	2118.2	2115.2	2104.3	2117.2	2116.2
5°	2108.3	2106.3	2097.4	2109.3	2108.3
7.5°	2092.5	2091.5	2084.5	2097.4	2097.4
10°	2072.7	2070.7	2065.8	2080.6	2079.6
12.5°	2045.0	2044.0	2041.0	2058.8	2057.8
15°	2012.4	2012.4	2011.4	2031.1	2031.1
17.5°	1972.8	1973.8	1977.7	2000.5	2001.5
20°	1928.3	1932.3	1940.2	1965.9	1967.9
22.5°	1877.9	1885.8	1896.7	1925.3	1928.3
25°	1827.4	1831.4	1848.2	1881.8	1888.8
27.5°	1766.1	1776.0	1797.8	1832.4	1839.3
30°	1703.8	1717.7	1745.4	1781.0	1791.8
32.5°	1642.5	1654.4	1687.0	1727.6	1740.4
35°	1575.3	1589.1	1629.7	1674.2	1688.0
37.5°	1501.1	1522.9	1565.4	1616.8	1631.6
40°	1432.9	1452.7	1499.1	1556.5	1572.3
42.5°	1354.8	1379.5	1435.8	1494.2	1514.0
45°	1277.6	1309.3	1369.6	1430.9	1455.6
47.5°	1205.4	1231.1	1302.3	1371.6	1393.3
50°	1126.3	1156.0	1231.1	1304.3	1327.1
52.5°	1048.2	1083.8	1159.9	1237.1	1261.8
55°	968.1	1009.6	1090.7	1170.8	1197.5
57.5°	891.0	932.5	1016.6	1101.6	1129.3
60°	808.9	853.4	946.4	1028.4	1063.0
62.5°	729.8	774.3	872.2	961.2	993.8
65°	651.7	696.2	797.0	888.0	921.6
67.5°	570.6	619.0	726.8	814.8	847.5
70°	496.4	542.9	651.7	745.6	780.2
72.5°	411.4	466.7	577.5	670.5	703.1
75°	330.3	392.6	503.3	590.4	614.1
77.5°	255.1	317.4	428.2	493.4	508.3
80°	184.9	248.2	340.2	385.7	397.5
82.5°	119.7	184.9	246.2	276.9	280.8
85°	66.3	114.7	146.4	155.3	148.3
87.5°	23.7	43.5	42.5	34.6	27.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)