

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: P474276

Luminaire Tested: **24CZ2-65HE-RDP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474276
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65HE-RDP-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ RDP INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4626.9 lumens
Efficiency: N/A
Efficacy: 94.6 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

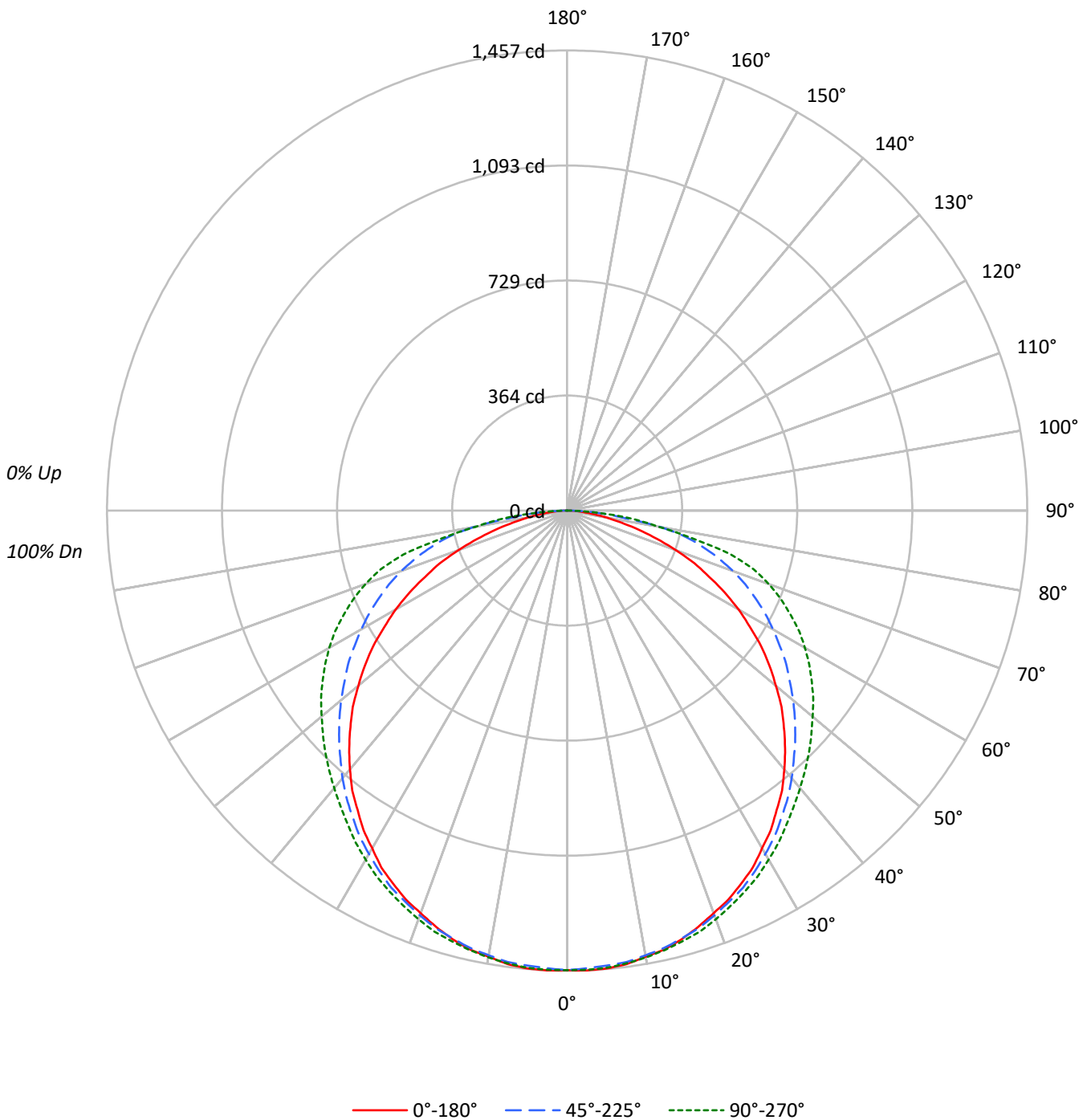
Input Watts (W): 48.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1958	1958	1958
5°	1965	1953	1962
10°	1960	1953	1963
15°	1957	1953	1966
20°	1942	1952	1972
25°	1935	1956	1976
30°	1918	1950	1982
35°	1900	1945	1990
40°	1879	1943	2015
45°	1847	1944	2061
50°	1806	1955	2124
55°	1760	1986	2218
60°	1686	2025	2341
65°	1578	2097	2484
70°	1435	2194	2672
75°	1216	2314	2792
80°	961	2329	2258
85°	709	1772	1985



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.0	3.0
10°-20°	397.2	8.6
20°-30°	607.5	13.1
30°-40°	742.6	16.0
40°-50°	791.5	17.1
50°-60°	756.7	16.4
60°-70°	641.0	13.9
70°-80°	430.8	9.3
80°-90°	121.6	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°	1142.7	24.7
0°-40°	1885.3	40.7
0°-60°	3433.5	74.2
0°-90°	4626.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4626.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1455	1455	1455	1455	1455	
5°	1455	1453	1446	1453	1453	138
15°	1405	1405	1402	1414	1412	396
25°	1304	1308	1317	1329	1331	601
35°	1157	1166	1184	1207	1212	725
45°	971	987	1021	1065	1083	749
55°	750	778	847	913	946	668
65°	496	546	659	746	780	492
75°	234	319	445	521	537	251
85°	46	94	115	124	129	57
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1455.1	1455.1	1455.1	1455.1	1455.1
2.5°	1457.4	1457.4	1450.5	1455.1	1455.1
5°	1455.1	1452.8	1445.9	1452.8	1452.8
7.5°	1448.2	1445.9	1441.3	1448.2	1445.9
10°	1434.4	1434.4	1429.8	1436.7	1436.7
12.5°	1423.0	1420.7	1418.4	1427.6	1425.3
15°	1404.6	1404.6	1402.3	1413.8	1411.5
17.5°	1381.6	1383.9	1386.2	1395.4	1397.7
20°	1356.4	1361.0	1363.3	1377.0	1377.0
22.5°	1333.4	1335.7	1340.3	1354.1	1354.1
25°	1303.6	1308.2	1317.3	1328.8	1331.1
27.5°	1273.7	1276.0	1287.5	1303.6	1305.9
30°	1234.7	1241.6	1255.3	1273.7	1276.0
32.5°	1200.2	1207.1	1223.2	1241.6	1246.2
35°	1156.6	1165.8	1184.2	1207.1	1211.7
37.5°	1117.6	1124.5	1147.4	1172.7	1179.6
40°	1069.6	1083.1	1106.1	1135.9	1147.4
42.5°	1021.4	1035.1	1062.7	1101.5	1115.3
45°	970.8	986.9	1021.4	1065.0	1083.1
47.5°	920.3	938.7	977.7	1028.2	1048.9
50°	862.9	885.9	934.1	991.5	1014.5
52.5°	807.8	835.4	888.2	952.5	982.3
55°	750.4	778.0	846.8	913.4	945.6
57.5°	686.1	722.8	798.6	874.4	908.8
60°	626.6	660.8	752.7	835.4	869.8
62.5°	562.3	608.3	706.8	794.0	828.5
65°	495.8	546.3	658.6	745.8	780.3
67.5°	436.1	491.2	610.6	697.6	732.0
70°	364.9	433.8	557.7	644.8	679.2
72.5°	298.3	374.1	502.6	587.6	619.7
75°	234.0	318.9	445.2	521.0	537.1
77.5°	174.5	263.8	385.5	417.7	406.2
80°	124.0	211.3	300.6	284.5	291.4
82.5°	80.4	160.7	186.0	211.3	217.9
85°	45.9	94.1	114.8	124.0	128.6
87.5°	20.7	34.4	45.9	45.9	43.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)