

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: P474676

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474676
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65HE-SQR-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6560.8 lumens
Efficiency: N/A
Efficacy: 134.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

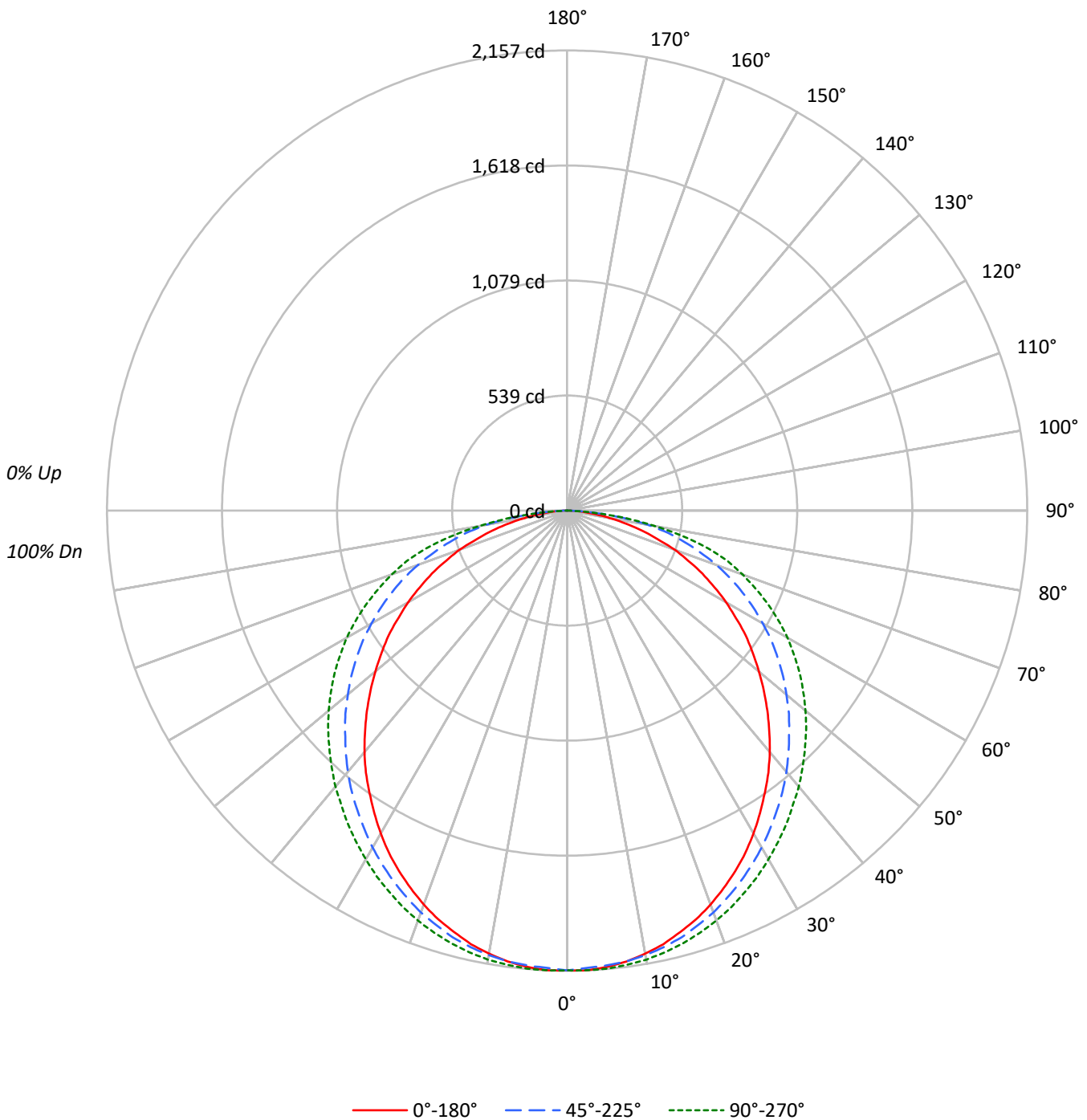
Input Watts (W): 48.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73		80	76	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51		62	56	51		60	55	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	39		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	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	25		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5799	5799	5799
5°	5799	5782	5821
10°	5763	5782	5840
15°	5700	5770	5849
20°	5628	5742	5856
25°	5537	5701	5857
30°	5429	5667	5866
35°	5306	5633	5888
40°	5192	5615	5935
45°	5050	5600	5999
50°	4914	5617	6108
55°	4799	5655	6245
60°	4637	5697	6420
65°	4451	5766	6614
70°	4223	5847	6878
75°	3781	5928	7105
80°	3183	5945	6448
85°	2362	4499	4239



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.2	3.1
10°-20°	585.3	8.9
20°-30°	886.0	13.5
30°-40°	1071.8	16.3
40°-50°	1131.4	17.2
50°-60°	1066.9	16.3
60°-70°	879.6	13.4
70°-80°	577.0	8.8
80°-90°	158.7	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°	1675.5	25.5
0°-40°	2747.3	41.9
0°-60°	4945.6	75.4
0°-90°	6560.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6560.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2155	2155	2155	2155	2155	
5°	2147	2147	2140	2155	2155	204
15°	2046	2058	2071	2095	2100	577
25°	1865	1888	1920	1960	1973	859
35°	1615	1657	1715	1774	1792	1011
45°	1327	1387	1472	1550	1576	1024
55°	1023	1095	1205	1296	1331	911
65°	699	783	906	1002	1039	690
75°	364	457	570	660	683	384
85°	76	132	146	142	137	95
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2155.0	2155.0	2155.0	2155.0	2155.0
2.5°	2157.1	2155.0	2145.6	2158.2	2157.1
5°	2146.6	2146.6	2140.4	2155.0	2155.0
7.5°	2132.0	2133.0	2130.9	2147.7	2147.7
10°	2108.9	2113.1	2116.2	2135.1	2137.2
12.5°	2081.7	2089.0	2095.3	2118.3	2120.4
15°	2046.0	2057.6	2071.2	2095.3	2099.5
17.5°	2009.3	2023.0	2037.6	2069.1	2074.3
20°	1965.3	1981.0	2005.1	2036.6	2045.0
22.5°	1916.0	1938.1	1963.2	2001.0	2011.4
25°	1864.7	1887.7	1920.2	1960.1	1972.6
27.5°	1809.1	1836.4	1873.1	1919.2	1932.8
30°	1747.3	1778.7	1823.8	1873.1	1887.7
32.5°	1682.3	1719.0	1769.3	1823.8	1840.6
35°	1615.2	1657.2	1714.8	1773.5	1792.4
37.5°	1549.2	1591.1	1659.2	1721.1	1738.9
40°	1477.9	1524.0	1598.5	1664.5	1689.6
42.5°	1402.4	1457.0	1535.6	1608.9	1633.0
45°	1327.0	1386.7	1471.6	1550.2	1576.4
47.5°	1250.5	1316.5	1409.8	1489.4	1519.8
50°	1173.9	1244.2	1341.7	1427.6	1459.0
52.5°	1096.4	1169.8	1275.6	1366.8	1395.1
55°	1023.0	1095.3	1205.4	1295.5	1331.2
57.5°	938.1	1019.9	1136.2	1227.4	1262.0
60°	861.6	941.3	1058.6	1155.1	1192.8
62.5°	778.8	860.5	984.2	1080.7	1117.3
65°	699.1	783.0	905.6	1002.0	1038.7
67.5°	613.2	701.2	827.0	920.3	955.9
70°	536.7	619.5	743.2	838.5	874.2
72.5°	443.4	537.7	656.2	750.5	789.3
75°	363.7	457.0	570.2	660.3	683.4
77.5°	279.9	373.1	485.3	544.0	559.7
80°	205.4	293.5	383.6	415.1	416.1
82.5°	138.4	215.9	267.3	283.0	280.9
85°	76.5	132.1	145.7	141.5	137.3
87.5°	31.4	44.0	35.6	25.2	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)