

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: P474675

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474675
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60HE-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

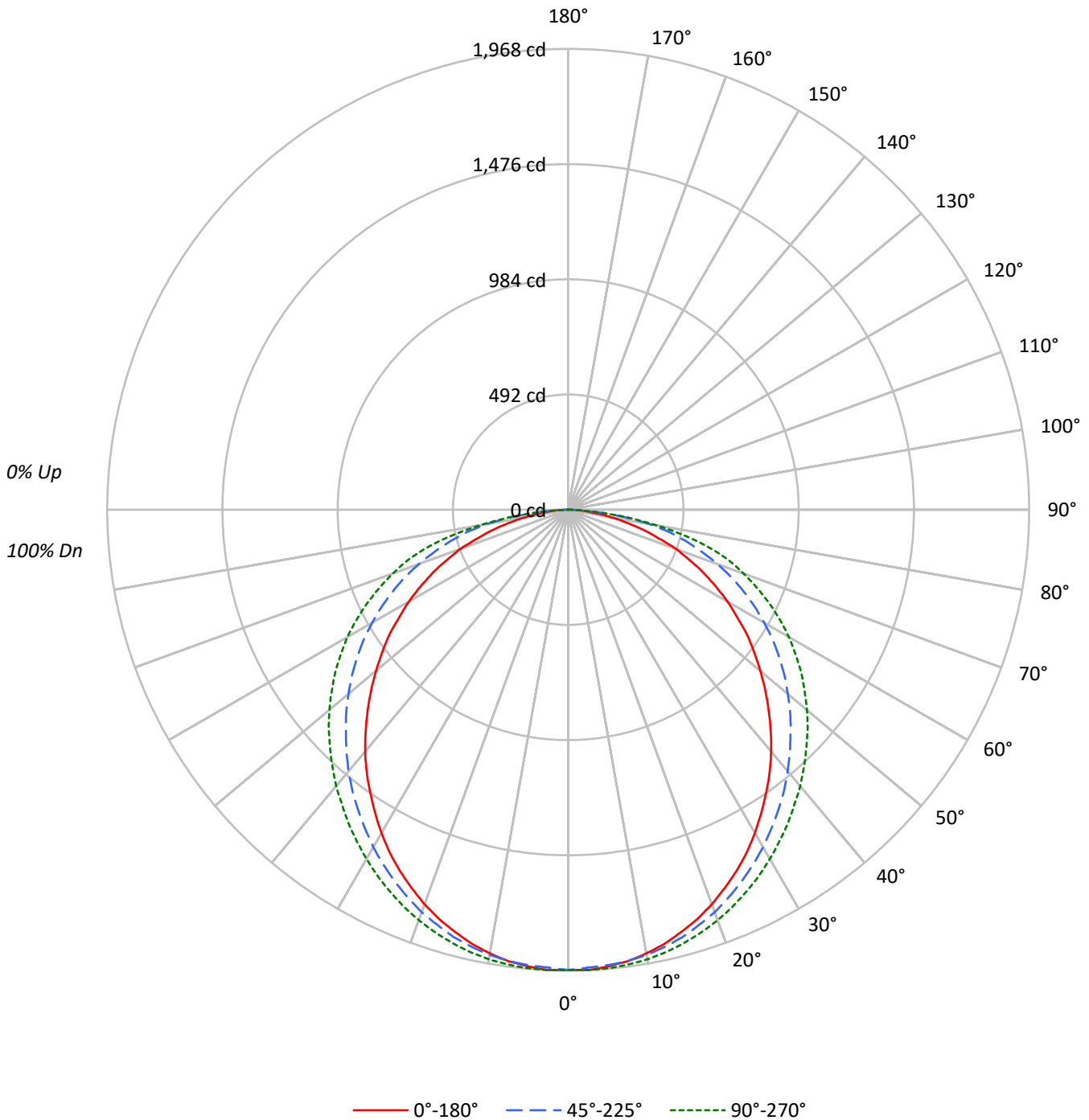
Lumens per Lamp: N/A
Luminaire Lumens: 5984.8 lumens
Efficiency: N/A
Efficacy: 135.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 44.1
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°	5290	5290	5290
5°	5290	5274	5310
10°	5257	5275	5327
15°	5200	5263	5335
20°	5134	5238	5342
25°	5051	5201	5343
30°	4953	5170	5351
35°	4840	5139	5371
40°	4736	5122	5414
45°	4607	5109	5472
50°	4483	5124	5572
55°	4378	5159	5697
60°	4230	5197	5856
65°	4060	5260	6033
70°	3851	5334	6274
75°	3450	5408	6482
80°	2904	5422	5883
85°	2155	4103	3869



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.3	3.1
10°-20°	533.9	8.9
20°-30°	808.2	13.5
30°-40°	977.7	16.3
40°-50°	1032.0	17.2
50°-60°	973.2	16.3
60°-70°	802.4	13.4
70°-80°	526.4	8.8
80°-90°	144.7	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°	1528.4	25.5
0°-40°	2506.1	41.9
0°-60°	4511.4	75.4
0°-90°	5984.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5984.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1966	1966	1966	1966	1966	
5°	1958	1958	1952	1966	1966	186
15°	1866	1877	1889	1911	1915	527
25°	1701	1722	1752	1788	1800	783
35°	1473	1512	1564	1618	1635	922
45°	1210	1265	1342	1414	1438	934
55°	933	999	1100	1182	1214	831
65°	638	714	826	914	948	630
75°	332	417	520	602	623	351
85°	70	120	133	129	125	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1965.8	1965.8	1965.8	1965.8	1965.8
2.5°	1967.7	1965.8	1957.2	1968.7	1967.7
5°	1958.2	1958.2	1952.4	1965.8	1965.8
7.5°	1944.8	1945.7	1943.8	1959.1	1959.1
10°	1923.8	1927.6	1930.4	1947.7	1949.6
12.5°	1898.9	1905.6	1911.3	1932.4	1934.3
15°	1866.4	1876.9	1889.3	1911.3	1915.1
17.5°	1832.9	1845.4	1858.7	1887.4	1892.2
20°	1792.8	1807.1	1829.1	1857.8	1865.4
22.5°	1747.8	1767.9	1790.9	1825.3	1834.8
25°	1701.0	1722.0	1751.6	1788.0	1799.5
27.5°	1650.3	1675.2	1708.6	1750.7	1763.1
30°	1593.9	1622.6	1663.7	1708.6	1722.0
32.5°	1534.6	1568.1	1614.0	1663.7	1679.0
35°	1473.4	1511.7	1564.2	1617.8	1635.0
37.5°	1413.2	1451.4	1513.6	1570.0	1586.2
40°	1348.2	1390.2	1458.1	1518.4	1541.3
42.5°	1279.3	1329.0	1400.7	1467.7	1489.7
45°	1210.5	1265.0	1342.4	1414.1	1438.0
47.5°	1140.7	1200.9	1286.0	1358.7	1386.4
50°	1070.9	1134.9	1223.9	1302.3	1330.9
52.5°	1000.1	1067.1	1163.6	1246.8	1272.6
55°	933.2	999.2	1099.6	1181.8	1214.3
57.5°	855.7	930.3	1036.5	1119.6	1151.2
60°	785.9	858.6	965.7	1053.7	1088.1
62.5°	710.4	785.0	897.8	985.8	1019.2
65°	637.7	714.2	826.1	914.1	947.5
67.5°	559.3	639.7	754.4	839.5	872.0
70°	489.5	565.1	677.9	764.9	797.4
72.5°	404.4	490.5	598.5	684.6	720.0
75°	331.8	416.9	520.1	602.4	623.4
77.5°	255.3	340.4	442.7	496.2	510.6
80°	187.4	267.7	349.9	378.6	379.6
82.5°	126.2	197.0	243.8	258.2	256.2
85°	69.8	120.5	132.9	129.1	125.3
87.5°	28.7	40.2	32.5	22.9	18.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)