

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: P476019

Luminaire Tested: **22GR-LD5-43-A19/156-UNV-L850-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476019
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-43-A19/156-UNV-L850-CD1-U
Description: GR 2'X2' LED TROFFER w/ A19/156 LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4221.8 lumens
Efficiency: N/A
Efficacy: 121.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.23
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

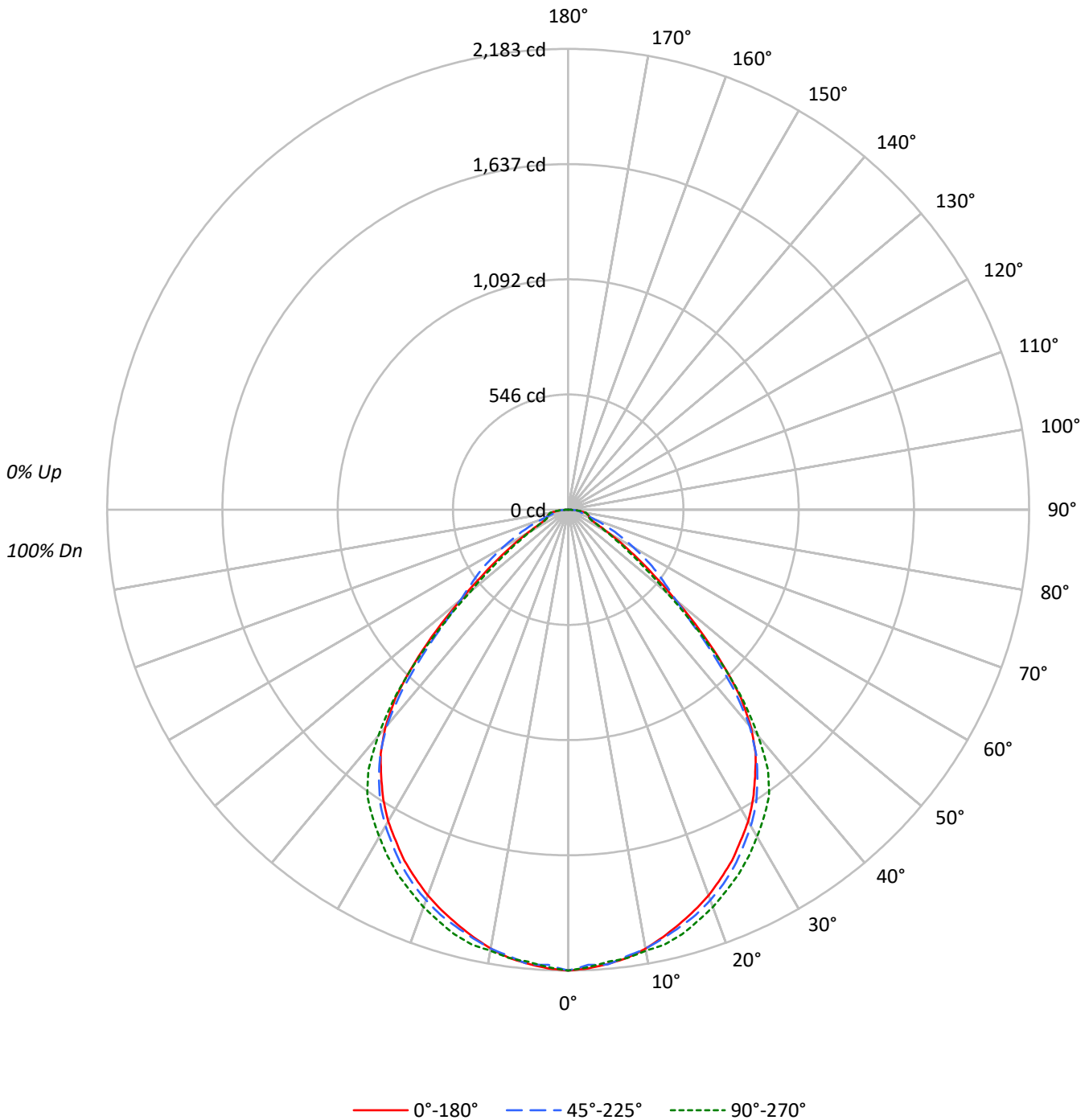
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	111	107	103	100	108	105	101	99	100	98	95	97	95	93	93	91	90					88				
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	82	79					77				
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70					68				
4	88	78	70	65	86	77	70	64	74	68	63	72	67	63	70	65	62					60				
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55					53				
6	76	65	57	51	75	64	56	51	62	55	50	60	54	50	59	54	50					48				
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45					43				
8	67	54	47	41	65	54	46	41	53	46	41	51	45	41	50	45	41					39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37					36				
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34					33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5875	5875	5875
5°	5834	5840	5807
10°	5768	5770	5797
15°	5662	5700	5802
20°	5567	5637	5737
25°	5447	5532	5662
30°	5295	5376	5560
35°	5069	5133	5447
40°	4731	4694	4913
45°	3929	3707	3895
50°	2768	2782	2537
55°	1859	2391	1673
60°	1199	1919	1112
65°	831	1486	800
70°	836	1013	828
75°	1028	792	1020
80°	1255	917	1331
85°	1226	1250	1352



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.4	4.8
10°-20°	578.6	13.7
20°-30°	858.0	20.3
30°-40°	981.5	23.2
40°-50°	777.0	18.4
50°-60°	424.0	10.0
60°-70°	221.8	5.3
70°-80°	128.1	3.0
80°-90°	48.4	1.1
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°	1641.0	38.9
0°-40°	2622.5	62.1
0°-60°	3823.5	90.6
0°-90°	4221.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4221.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2183	2183	2183	2183	2183	
5°	2160	2144	2162	2155	2150	205
15°	2032	2043	2046	2062	2083	573
25°	1835	1837	1863	1886	1907	843
35°	1543	1543	1562	1619	1658	962
45°	1032	1027	974	1022	1024	785
55°	396	495	510	475	357	368
65°	130	263	233	250	126	141
75°	99	158	76	156	98	103
85°	40	52	40	53	44	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2183.1	2183.1	2183.1	2183.1	2183.1
2.5°	2175.0	2162.0	2158.8	2165.3	2169.3
5°	2159.6	2144.2	2162.0	2154.7	2149.9
7.5°	2141.8	2136.1	2132.8	2144.2	2141.8
10°	2111.0	2102.9	2111.8	2118.3	2121.5
12.5°	2073.7	2077.7	2079.4	2099.6	2109.3
15°	2032.4	2042.9	2046.1	2062.3	2082.6
17.5°	1990.2	1992.7	2012.1	2033.2	2042.9
20°	1944.0	1948.1	1968.3	1987.8	2003.2
22.5°	1889.7	1894.6	1919.7	1941.6	1954.6
25°	1834.6	1837.1	1863.0	1886.5	1906.8
27.5°	1768.2	1781.2	1796.5	1829.0	1850.8
30°	1704.2	1712.3	1730.1	1765.8	1789.3
32.5°	1628.8	1632.0	1654.7	1693.6	1725.2
35°	1542.9	1542.9	1562.4	1619.1	1658.0
37.5°	1457.8	1446.5	1461.9	1526.7	1554.3
40°	1346.8	1338.7	1336.3	1380.8	1398.7
42.5°	1210.7	1195.3	1167.7	1213.1	1227.7
45°	1032.4	1026.7	974.0	1021.9	1023.5
47.5°	846.0	850.1	790.9	838.7	803.1
50°	661.2	703.4	664.5	684.7	606.1
52.5°	514.6	593.2	578.6	570.5	463.5
55°	396.3	495.1	509.7	474.9	356.6
57.5°	302.3	422.2	431.1	406.8	271.5
60°	222.8	356.6	356.6	345.2	206.6
62.5°	166.1	306.3	290.1	293.3	158.0
65°	130.5	262.6	233.4	249.6	125.6
67.5°	109.4	218.8	176.7	215.6	109.4
70°	106.2	190.4	128.8	194.5	105.3
72.5°	105.3	175.0	96.4	176.7	106.2
75°	98.9	158.0	76.2	155.6	98.1
77.5°	90.8	131.3	63.2	131.3	91.6
80°	81.0	99.7	59.2	102.1	85.9
82.5°	62.4	71.3	52.7	72.1	66.4
85°	39.7	51.9	40.5	52.7	43.8
87.5°	17.8	27.6	17.8	28.4	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)