

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: P291470

Luminaire Tested: **14GR-LD5-43-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291470
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33288)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14GR-LD5-43-A19/156-UNV-L93050-W2A1-U-3500K
Description: GRLED 1x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3606.0 lumens
Efficiency: N/A
Efficacy: 96.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.23 / 1.18
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

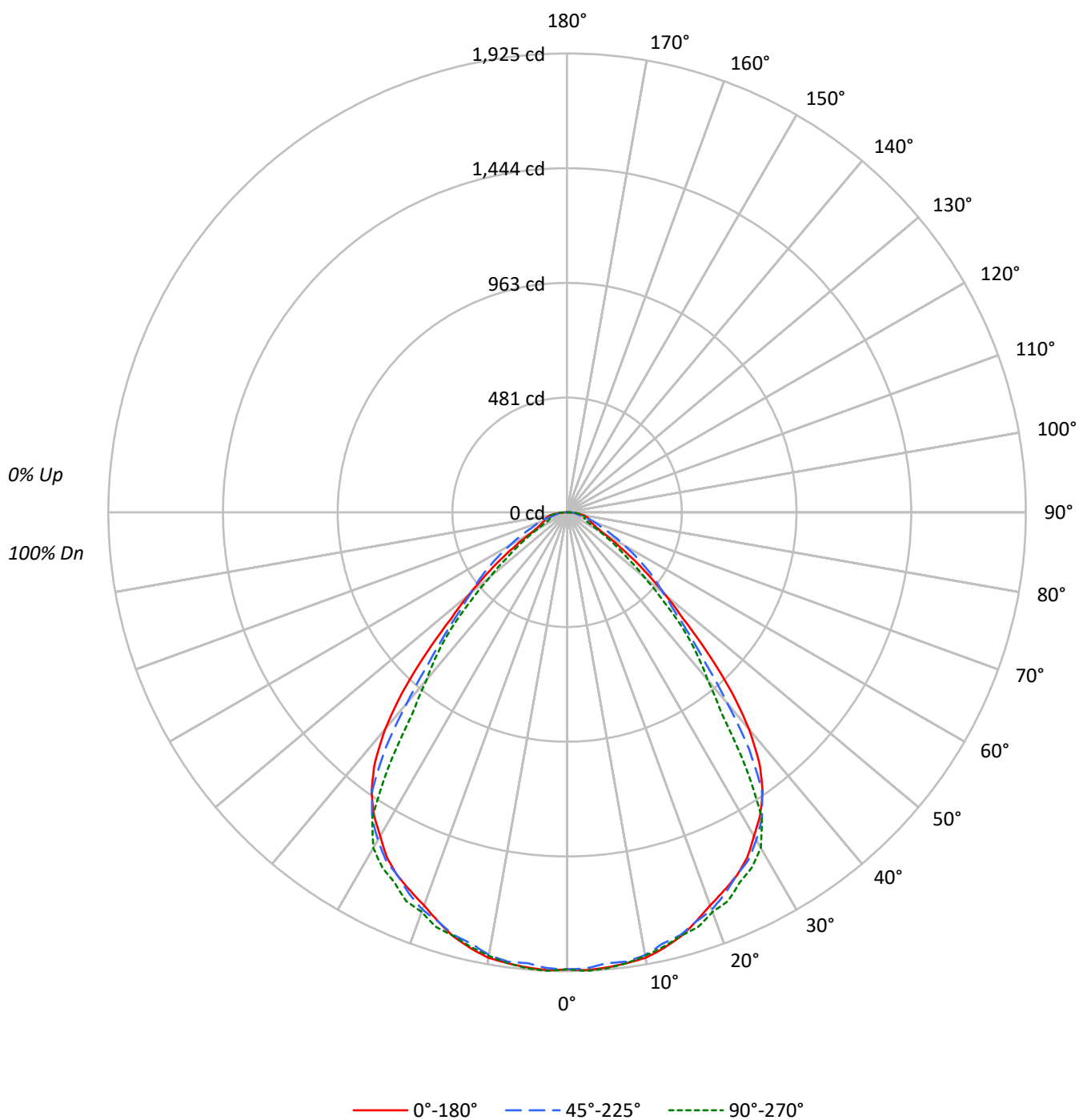
Input Watts (W): 37.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	111	107	104	100	108	105	102	99		101	98	96			97	95	93			93
2	103	96	90	86	100	94	89	85		91	87	83			88	84	81			85
3	95	87	80	74	93	85	79	74		82	77	73			80	75	71			77
4	89	79	71	65	87	77	70	65		75	69	64			73	68	63			71
5	83	71	64	58	81	70	63	58		68	62	57			67	61	57			65
6	77	65	58	52	75	64	57	52		63	56	51			61	55	51			60
7	72	60	52	47	70	59	52	47		58	51	46			56	51	46			55
8	67	55	48	43	66	55	47	42		53	47	42			52	46	42			51
9	63	51	44	39	62	51	44	39		50	43	39			49	43	38			48
10	60	48	40	36	58	47	40	36		46	40	35			45	39	35			44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5160	5160	5160
5°	5178	5128	5189
10°	5185	5154	5163
15°	5133	5114	5126
20°	5025	5080	5108
25°	4995	4993	5088
30°	4873	4932	5053
35°	4699	4680	4301
40°	4173	3682	3224
45°	3167	2755	2607
50°	2246	2205	1769
55°	1537	1882	1216
60°	950	1502	813
65°	783	1156	589
70°	780	1006	604
75°	936	721	807
80°	1074	665	1010
85°	1019	1173	1145



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.9	5.0
10°-20°	519.3	14.4
20°-30°	780.9	21.7
30°-40°	851.3	23.6
40°-50°	596.1	16.5
50°-60°	337.4	9.4
60°-70°	184.6	5.1
70°-80°	111.9	3.1
80°-90°	42.4	1.2
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°	1482.2	41.1
0°-40°	2333.5	64.7
0°-60°	3267.0	90.6
0°-90°	3606.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3606.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1918	1918	1918	1918	1918	
5°	1917	1913	1898	1921	1921	182
15°	1842	1838	1836	1862	1840	518
25°	1682	1686	1682	1720	1714	773
35°	1430	1424	1425	1352	1309	881
45°	832	868	724	715	685	646
55°	328	392	401	398	259	300
65°	123	202	182	230	92	126
75°	90	130	69	136	78	93
85°	33	54	38	46	37	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1917.5	1917.5	1917.5	1917.5	1917.5
2.5°	1922.5	1920.0	1914.2	1925.8	1925.0
5°	1916.7	1913.4	1898.5	1920.8	1920.8
7.5°	1908.5	1900.2	1901.0	1913.4	1907.6
10°	1897.7	1883.7	1886.2	1889.5	1889.5
12.5°	1873.0	1859.7	1853.1	1863.9	1867.2
15°	1842.4	1837.5	1835.8	1862.2	1839.9
17.5°	1799.5	1810.2	1800.3	1821.8	1825.1
20°	1754.9	1775.6	1773.9	1788.8	1783.8
22.5°	1718.6	1731.8	1731.8	1750.0	1764.8
25°	1682.3	1685.6	1681.5	1720.2	1713.6
27.5°	1635.2	1632.7	1646.0	1665.8	1679.0
30°	1568.4	1569.2	1587.3	1613.8	1626.1
32.5°	1507.3	1499.9	1522.1	1533.7	1520.5
35°	1430.5	1423.9	1424.7	1352.1	1309.2
37.5°	1325.7	1331.5	1255.5	1122.6	1066.5
40°	1187.8	1199.4	1048.3	949.3	917.9
42.5°	1021.1	1024.4	859.3	827.1	806.5
45°	832.1	868.4	723.9	714.8	685.1
47.5°	659.5	727.2	606.7	612.5	541.5
50°	536.5	604.2	526.6	529.1	422.6
52.5°	424.3	490.3	464.7	457.3	331.8
55°	327.7	392.1	401.2	397.9	259.2
57.5°	241.0	310.4	336.8	349.2	199.8
60°	176.6	253.4	279.0	303.8	151.1
62.5°	140.3	219.6	228.7	265.0	117.2
65°	123.0	202.2	181.6	229.5	92.5
67.5°	109.8	192.3	147.8	203.1	80.9
70°	99.1	173.3	127.9	181.6	76.8
72.5°	99.1	151.9	100.7	161.0	77.6
75°	90.0	129.6	69.3	136.2	77.6
77.5°	80.1	110.6	52.0	110.6	72.6
80°	69.3	86.7	42.9	85.0	65.2
82.5°	51.2	65.2	37.1	63.6	52.8
85°	33.0	53.7	38.0	46.2	37.1
87.5°	15.7	27.2	23.9	23.1	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)