

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: 17898

Luminaire Tested: **MB-SC-2T5**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 17898
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: MB-SC-2T5
Description: DIRECT/INDIRECT SUSPENDED LUMINAIRE - MINIGATOR WHITE INTERIOR WITH
SPECULAR REFLECTORS AND WHITE LENS OVER CONCAVE PERF PANEL
Light Source: TWO PHILIPS 54 WATT T5 LAMPS

F54T5.841HO. LUMEN RATING = 4500 LMS.

Ballast/Driver: -

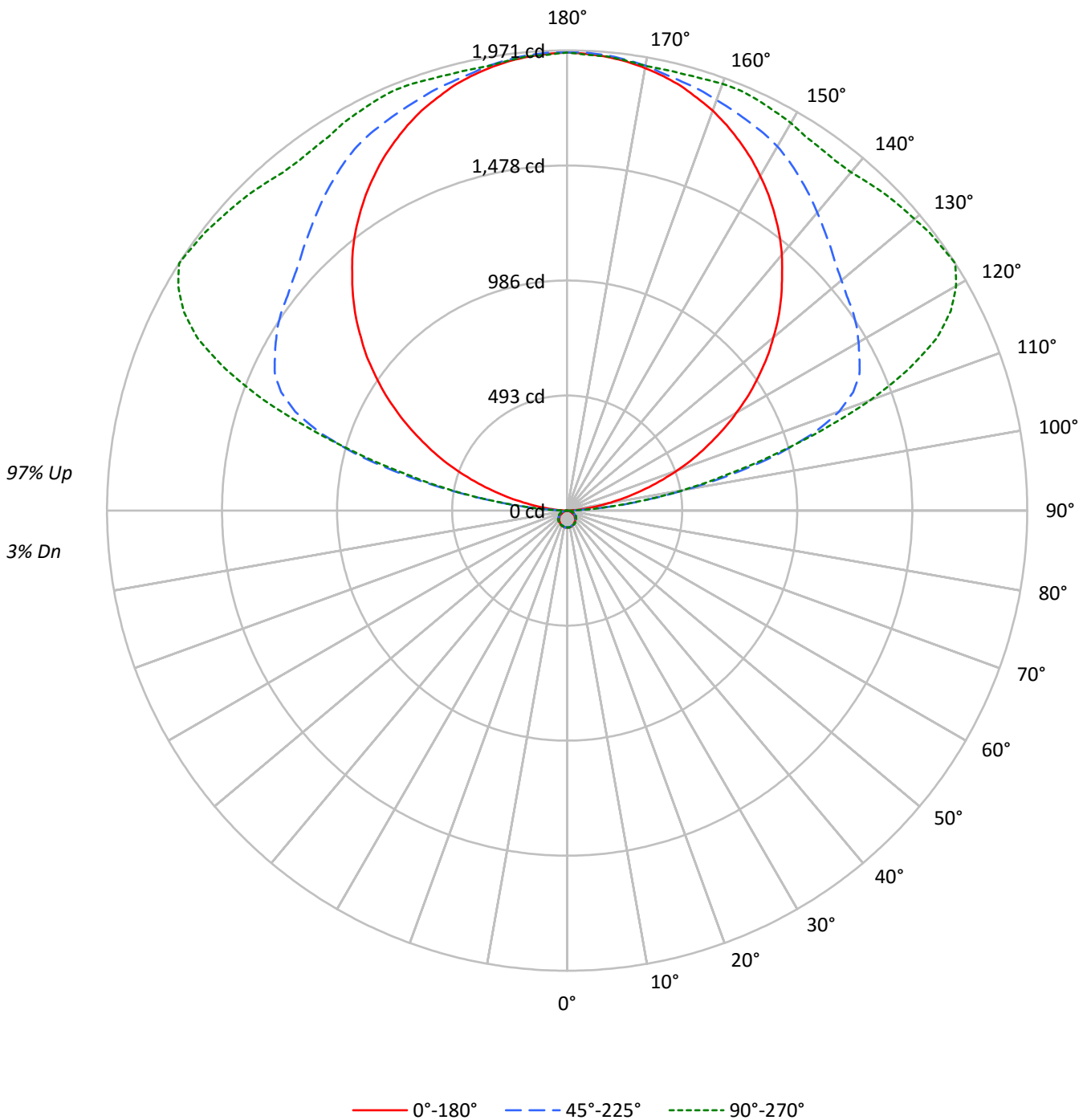
Summary

Lumens per Lamp: 4500 (2 lamps)
Luminaire Lumens: 7745.7 lumens
Efficiency: 86.1%
Efficacy: 64.5 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.32 / 1.43
Luminous Opening: Rectangular (W 0.22' x L: 3.59' x H: 0')
CIE Type: Indirect

Input Watts (W): 120
Input Voltage (V): NR
Input Current (A_{in}): 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	83	83	83	83	71	71	71	71	49	49	49	29	29	29	11	11	11	3
1	75	72	68	66	64	62	59	57	43	41	40	26	25	24	10	9	9	2
2	68	62	58	53	58	54	50	46	37	35	33	22	21	20	8	8	8	2
3	62	55	49	44	53	47	42	39	33	30	28	20	18	17	7	7	6	1
4	57	48	42	37	48	42	36	32	29	26	23	17	16	14	7	6	6	1
5	52	43	36	32	44	37	32	28	26	22	20	15	14	12	6	5	5	1
6	48	38	32	27	41	33	27	24	23	20	17	14	12	10	5	5	4	1
7	44	34	28	23	37	29	24	20	21	17	15	12	11	9	5	4	4	1
8	40	31	24	20	35	26	21	18	19	15	13	11	9	8	4	4	3	1
9	37	28	22	18	32	24	19	16	17	14	11	10	8	7	4	3	3	1
10	35	25	19	16	30	22	17	14	15	12	10	9	7	6	4	3	2	1

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	981	981	981
5°	995	995	995
10°	988	988	1006
15°	988	988	988
20°	980	960	975
25°	980	980	995
30°	960	982	1004
35°	975	993	1015
40°	927	1000	995
45°	964	1004	1056
50°	922	1033	1024
55°	943	1034	1098
60°	840	1017	1148
65°	793	1080	1158
70°	526	1132	1183
75°	495	1169	1295
80°	549	1036	1146
85°	407	891	1470



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	6.9	0.1	0.1
10°-20°	19.7	0.3	0.2
20°-30°	29.9	0.4	0.3
30°-40°	36.8	0.5	0.4
40°-50°	39.3	0.5	0.4
50°-60°	37.2	0.5	0.4
60°-70°	30.9	0.4	0.3
70°-80°	20.0	0.3	0.2
80°-90°	6.6	0.1	0.1
90°-100°	202.3	2.6	2.2
100°-110°	821.8	10.6	9.1
110°-120°	1259.3	16.3	14.0
120°-130°	1332.2	17.2	14.8
130°-140°	1243.5	16.1	13.8
140°-150°	1083.4	14.0	12.0
150°-160°	849.8	11.0	9.4
160°-170°	540.1	7.0	6.0
170°-180°	186.0	2.4	2.1
0°-30°	56.4	0.7	0.6
0°-40°	93.3	1.2	1.0
0°-60°	169.8	2.2	1.9
0°-90°	227.3	2.9	2.5
90°-120°	2283.4	29.5	25.4
90°-150°	5942.5	76.7	66.0
90°-180°	7518.0	97.1	83.5
0°-180°	7745.7	100.0	86.1

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	72	72	72	72	72	
5°	73	73	73	73	73	7
15°	70	69	70	70	70	20
25°	65	65	65	64	66	30
35°	59	59	60	60	61	36
45°	50	47	52	51	55	38
55°	40	40	44	42	46	34
65°	25	27	34	33	36	24
75°	9	18	22	22	25	10
85°	3	3	6	9	9	3
90°	0	0	0	0	0	2
95°	55	168	174	174	164	70
105°	331	667	936	938	907	352
115°	668	906	1382	1647	1747	663
125°	1000	1142	1492	1815	1962	894
135°	1297	1408	1596	1820	1921	1000
145°	1549	1612	1738	1853	1893	969
155°	1746	1766	1839	1920	1938	805
165°	1883	1894	1902	1932	1935	531
175°	1951	1960	1958	1957	1953	185
180°	1962	1962	1962	1962	1962	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	72.0	72.0	72.0	72.0	72.0
2.5°	72.7	72.4	71.4	73.8	72.7
5°	72.7	72.7	72.7	72.7	72.7
7.5°	72.7	71.4	72.7	73.8	72.7
10°	71.4	68.6	71.4	70.0	72.7
12.5°	72.7	73.8	70.0	71.4	68.6
15°	70.0	68.6	70.0	70.0	70.0
17.5°	70.0	72.4	67.2	67.2	68.6
20°	67.6	67.2	66.2	66.2	67.2
22.5°	67.2	63.8	67.2	67.2	66.2
25°	65.2	65.2	65.2	63.8	66.2
27.5°	62.4	61.0	63.8	63.8	65.2
30°	61.0	59.7	62.4	63.8	63.8
32.5°	58.6	57.6	61.0	60.0	62.4
35°	58.6	58.6	59.7	60.0	61.0
37.5°	54.8	56.2	58.6	57.3	60.0
40°	52.1	53.5	56.2	54.8	55.9
42.5°	52.1	50.0	52.1	53.8	54.8
45°	50.0	47.3	52.1	51.1	54.8
47.5°	44.5	47.3	51.1	51.1	52.4
50°	43.5	44.5	48.7	47.3	48.3
52.5°	41.1	41.1	44.9	44.9	48.3
55°	39.7	39.7	43.5	42.1	46.2
57.5°	34.6	35.9	39.7	42.1	43.5
60°	30.8	32.1	37.3	37.3	42.1
62.5°	28.4	32.1	35.9	37.3	38.3
65°	24.6	27.0	33.5	33.2	35.9
67.5°	20.8	23.2	30.8	33.2	33.2
70°	13.2	20.8	28.4	29.7	29.7
72.5°	13.2	19.8	24.6	28.4	27.0
75°	9.4	18.4	22.2	22.2	24.6
77.5°	7.0	12.2	14.6	18.0	17.0
80°	7.0	9.4	13.2	14.6	14.6
82.5°	4.6	6.7	12.2	9.4	10.8
85°	2.6	3.3	5.7	9.4	9.4
87.5°	0.5	0.5	3.3	4.3	7.0
90°	0.5	0.5	0.5	0.5	0.5
92.5°	10.8	51.1	48.7	64.8	47.3
95°	54.8	168.4	173.5	173.5	164.2
97.5°	108.9	320.7	330.7	333.5	325.9
100°	174.9	484.8	516.1	567.7	503.4
102.5°	250.2	543.6	726.6	668.5	688.8
105°	331.1	667.1	935.8	937.8	906.9
107.5°	415.3	731.4	1110.5	1154.5	1143.5
110°	499.6	793.0	1239.1	1365.0	1382.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	588.0	848.7	1326.2	1526.4	1582.1
115°	668.5	905.5	1381.6	1647.4	1747.2
117.5°	754.1	960.5	1411.8	1736.9	1852.8
120°	837.4	1027.6	1441.1	1792.3	1923.7
122.5°	921.7	1109.5	1469.6	1813.9	1971.1
125°	1000.1	1142.5	1492.3	1815.3	1962.5
127.5°	1080.6	1226.8	1510.2	1830.1	1956.0
130°	1153.5	1293.5	1534.3	1826.3	1942.6
132.5°	1227.8	1354.0	1560.4	1823.9	1932.3
135°	1297.3	1408.0	1595.8	1820.1	1920.9
137.5°	1362.6	1457.2	1629.6	1816.3	1905.8
140°	1430.7	1506.4	1666.4	1817.4	1891.7
142.5°	1492.7	1555.6	1704.2	1831.5	1888.2
145°	1549.4	1612.0	1738.3	1852.8	1893.4
147.5°	1604.8	1634.7	1772.3	1861.7	1899.6
150°	1655.0	1687.7	1801.2	1883.1	1917.1
152.5°	1702.8	1726.9	1822.5	1902.0	1927.1
155°	1745.8	1765.8	1838.7	1919.5	1938.4
157.5°	1786.4	1802.6	1855.2	1925.7	1946.4
160°	1823.6	1833.9	1871.7	1924.7	1945.0
162.5°	1852.8	1866.6	1889.3	1926.1	1938.8
165°	1883.1	1894.4	1902.0	1932.3	1935.0
167.5°	1905.8	1922.3	1915.7	1936.0	1934.7
170°	1924.7	1929.8	1935.0	1938.4	1933.6
172.5°	1939.8	1948.8	1947.4	1948.4	1943.6
175°	1951.2	1960.1	1957.7	1957.4	1952.6
177.5°	1957.7	1966.3	1962.5	1962.5	1953.6
180°	1962.1	1962.1	1962.1	1962.1	1962.1

(END OF REPORT)