

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1033375

Luminaire Tested: S124DIW-B1195D770UB40-4F0-XX-W2A-F

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1033375
REPORT IS A COMBINATION OF REPORTS P997267 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIW-B1195D770UB40-4F0-XX-W2A-F
Description: Define 4 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

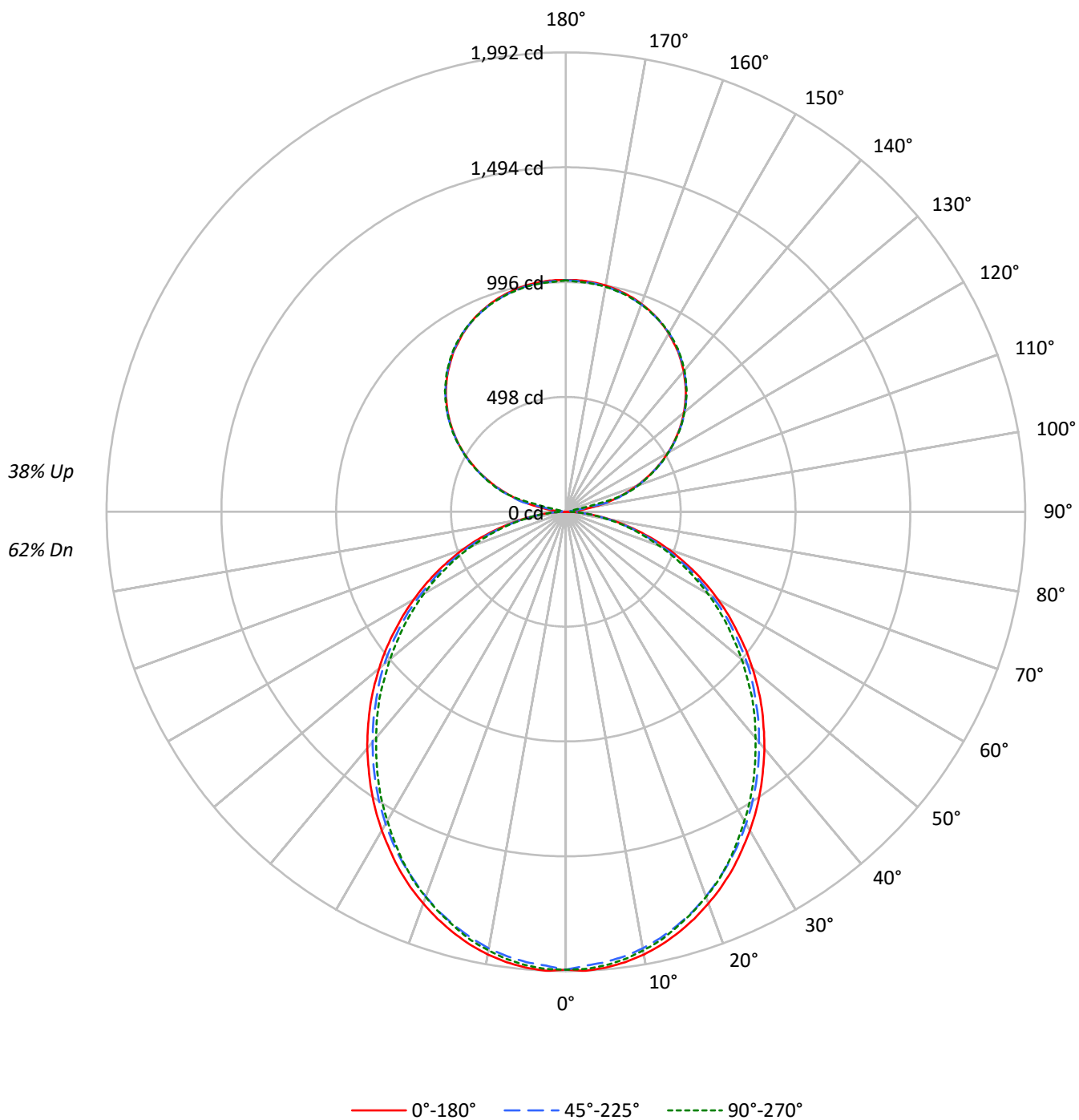
Lumens per Lamp: N/A
Luminaire Lumens: 8205.0 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 84.5
Input Voltage (V):
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: 24 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	30	10	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	100	96	92	88	94	90	87	83	79	76	74	69	67	65	59	58	57	52
2	91	84	78	72	85	79	73	69	69	65	61	60	57	54	52	50	48	44
3	83	74	66	60	78	69	63	57	61	56	52	53	49	46	46	43	41	37
4	76	65	57	51	71	62	54	49	54	49	44	48	43	39	41	38	35	32
5	70	58	50	44	65	55	47	42	49	43	38	43	38	34	37	34	31	28
6	65	52	44	38	60	49	42	36	44	38	33	39	34	30	34	30	27	24
7	60	47	39	34	56	45	37	32	40	34	29	35	30	27	31	27	24	22
8	56	43	35	30	52	41	34	29	36	30	26	32	27	24	28	24	22	19
9	52	39	32	27	49	37	30	26	33	28	23	30	25	21	26	22	19	17
10	49	36	29	24	45	34	28	23	31	25	21	28	23	19	24	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16193	16193	16193
5°	16206	15728	15747
10°	16069	15291	15184
15°	15839	14772	14549
20°	15545	14210	13892
25°	15213	13617	13184
30°	14814	12976	12407
35°	14400	12318	11656
40°	13969	11612	10857
45°	13517	10904	10111
50°	13016	10216	9284
55°	12472	9414	8463
60°	11915	8534	7608
65°	11277	7627	6644
70°	10544	6534	5610
75°	9446	5267	4493
80°	8049	3809	3161
85°	6251	2119	1702

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13517 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.2	2.3
10°-20°	527.3	6.4
20°-30°	776.1	9.5
30°-40°	902.1	11.0
40°-50°	902.1	11.0
50°-60°	789.0	9.6
60°-70°	585.7	7.1
70°-80°	332.3	4.1
80°-90°	97.3	1.2
90°-100°	33.3	0.4
100°-110°	219.4	2.7
110°-120°	419.0	5.1
120°-130°	531.9	6.5
130°-140°	569.0	6.9
140°-150°	532.1	6.5
150°-160°	429.1	5.2
160°-170°	276.7	3.4
170°-180°	95.4	1.2
0°-30°	1490.6	18.2
0°-40°	2392.7	29.2
0°-60°	4083.7	49.8
0°-90°	5099.1	62.1
90°-120°	671.8	8.2
90°-150°	2304.8	28.1
90°-180°	3106.0	37.9
0°-180°	8205.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1986	1986	1986	1986	1986	
5°	1984	1978	1960	1978	1975	188
15°	1889	1882	1858	1868	1863	532
25°	1710	1699	1677	1679	1672	787
35°	1472	1461	1438	1427	1419	920
45°	1201	1190	1165	1147	1142	926
55°	909	904	882	862	853	814
65°	616	608	592	576	568	609
75°	328	320	312	306	304	348
85°	86	86	83	83	81	92
90°	2	10	16	21	22	8
95°	41	16	16	21	22	51
105°	226	230	234	241	214	237
115°	422	424	423	425	425	415
125°	593	596	595	597	598	530
135°	736	735	738	740	741	567
145°	848	851	851	851	853	530
155°	930	931	929	932	929	429
165°	981	978	978	984	977	277
175°	1004	999	1000	1007	998	96
180°	1004	1004	1004	1004	1004	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1985.8	1985.8	1985.8	1985.8	1985.8
2.5°	1992.2	1987.4	1969.9	1985.8	1984.2
5°	1984.2	1977.9	1960.4	1977.9	1974.7
7.5°	1969.9	1963.5	1944.5	1958.8	1957.2
10°	1949.2	1942.9	1922.2	1934.9	1931.7
12.5°	1922.2	1915.8	1893.5	1907.9	1903.1
15°	1888.8	1882.4	1858.5	1868.1	1863.3
17.5°	1850.6	1842.6	1820.3	1826.7	1823.5
20°	1807.6	1799.7	1775.8	1780.6	1777.4
22.5°	1761.5	1750.3	1726.5	1736.0	1729.6
25°	1710.5	1699.4	1677.1	1678.7	1672.4
27.5°	1653.3	1642.1	1621.4	1618.3	1610.3
30°	1596.0	1583.2	1562.6	1556.2	1548.2
32.5°	1535.5	1524.4	1502.1	1494.1	1486.2
35°	1471.9	1460.7	1438.4	1427.3	1419.4
37.5°	1405.0	1395.5	1371.6	1360.5	1349.3
40°	1339.8	1327.1	1303.2	1287.3	1279.3
42.5°	1269.8	1263.4	1236.4	1217.3	1212.5
45°	1201.4	1190.2	1164.8	1147.3	1142.5
47.5°	1129.8	1121.8	1097.9	1078.8	1066.1
50°	1056.6	1050.2	1027.9	1005.6	996.1
52.5°	985.0	977.0	953.1	934.0	921.3
55°	908.6	903.8	881.5	862.4	852.9
57.5°	837.0	832.2	809.9	790.8	781.3
60°	762.2	754.2	733.5	719.2	711.3
62.5°	689.0	682.6	660.3	647.6	639.7
65°	615.8	607.8	591.9	576.0	568.1
67.5°	541.0	534.6	518.7	502.8	501.2
70°	472.6	461.4	448.7	436.0	431.2
72.5°	399.4	388.3	378.7	369.2	364.4
75°	327.8	319.8	311.9	305.5	303.9
77.5°	257.8	254.6	246.6	245.0	240.3
80°	195.7	190.9	187.8	184.6	183.0
82.5°	135.3	133.7	133.7	132.1	130.5
85°	85.9	85.9	82.7	82.7	81.2
87.5°	41.4	39.8	38.2	38.2	38.2
90°	2.3	10.5	16.5	21.0	22.5
92.5°	11.3	9.8	15.8	20.3	20.3
95°	41.3	15.8	16.5	21.0	21.8
97.5°	78.8	95.3	16.5	20.3	21.0
100°	123.1	136.6	33.0	20.3	21.0
102.5°	172.7	181.7	190.7	21.8	21.8
105°	226.0	230.5	234.2	241.0	214.0
107.5°	274.8	277.0	282.3	286.0	289.0
110°	324.3	326.6	331.1	332.6	334.8

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	372.4	376.9	378.4	377.6	380.6
115°	421.9	424.2	423.4	424.9	424.9
117.5°	466.2	469.2	471.5	470.7	470.7
120°	511.3	514.3	513.5	515.0	513.5
122.5°	553.3	554.8	556.3	557.0	555.5
125°	593.1	596.1	594.6	596.8	597.6
127.5°	631.4	632.1	635.9	635.1	634.4
130°	668.2	668.9	671.2	671.9	671.9
132.5°	701.9	703.4	706.4	707.2	706.4
135°	735.7	735.0	738.0	739.5	741.0
137.5°	765.8	765.8	769.5	771.0	770.3
140°	795.0	796.5	798.0	800.3	801.0
142.5°	821.3	824.3	825.1	826.6	826.6
145°	848.3	850.6	850.6	851.3	852.8
147.5°	869.4	873.9	873.1	873.9	874.6
150°	892.6	895.6	894.9	894.9	895.6
152.5°	912.2	914.4	912.9	914.4	913.7
155°	930.2	930.9	928.7	931.7	929.4
157.5°	945.9	945.9	942.9	946.7	942.9
160°	959.4	957.2	956.4	960.9	956.4
162.5°	971.5	968.5	967.7	972.2	967.0
165°	981.2	977.5	977.5	983.5	976.7
167.5°	989.5	985.7	985.0	991.7	984.2
170°	996.2	991.7	992.5	998.5	991.0
172.5°	1000.7	996.2	997.0	1003.0	994.7
175°	1003.7	999.2	1000.0	1006.7	997.7
177.5°	1006.0	1000.7	1002.2	1008.2	999.2
180°	1003.7	1003.7	1003.7	1003.7	1003.7

(END OF REPORT)