

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: P1024979

Luminaire Tested: S124DIP-B1020D590UB50-4F0-XX-W2A-D1

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1024979
REPORT IS A COMBINATION OF REPORTS P995354 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DIP-B1020D590UB50-4F0-XX-W2A-D1
Description: Define 4 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

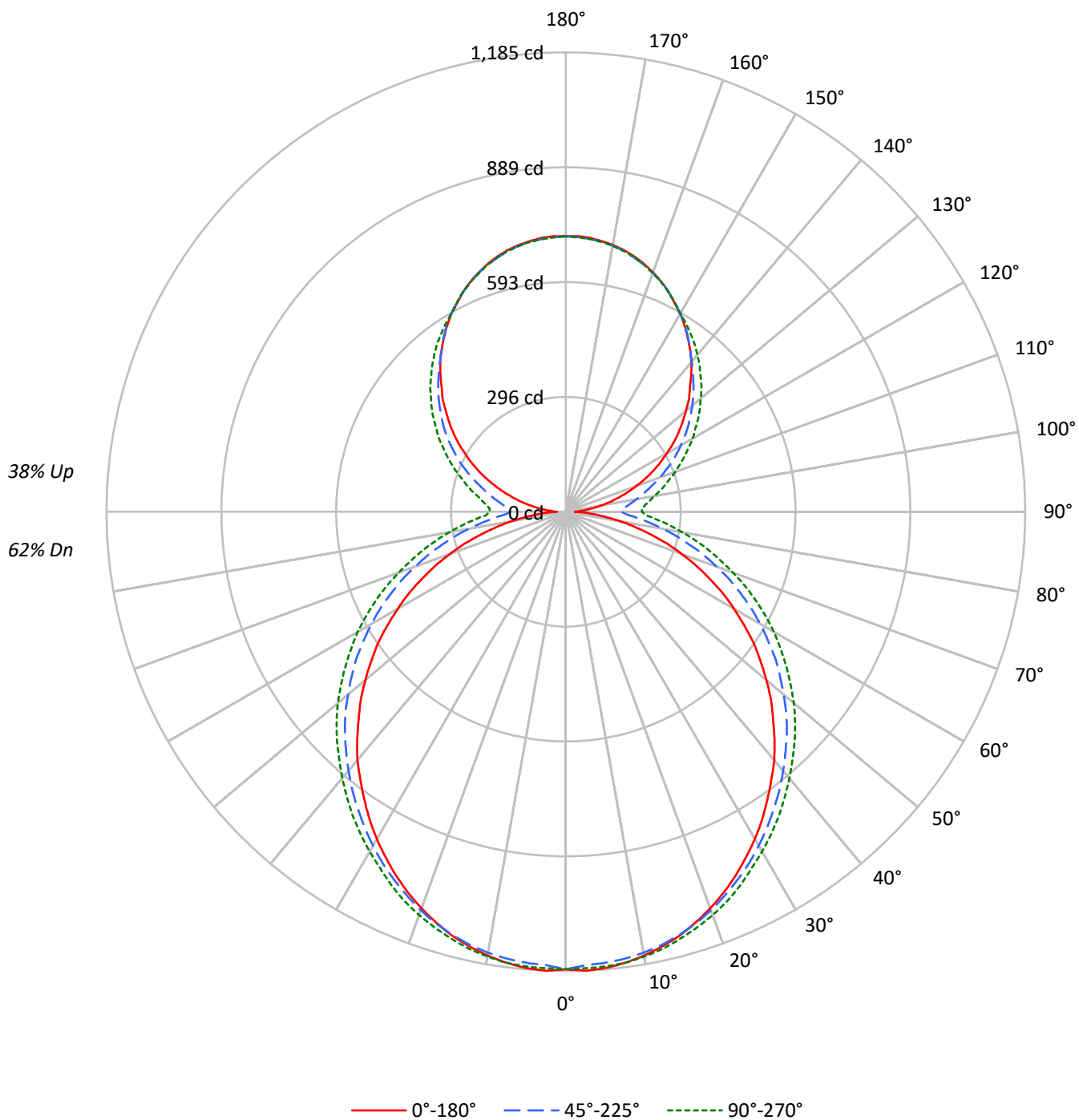
Lumens per Lamp: N/A
Luminaire Lumens: 5996.0 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 62.2
Input Voltage (V):
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: 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
RCR																	
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67
1	99	94	90	86	93	88	84	81	77	74	71	67	65	63	57	56	54
2	90	82	75	69	84	76	70	65	67	62	58	58	54	51	50	47	45
3	82	71	63	57	76	67	60	54	59	53	48	51	46	43	44	40	37
4	75	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32
5	68	56	47	41	64	53	45	39	46	40	35	40	35	31	35	31	28
6	63	50	41	35	59	47	39	34	42	35	30	36	31	27	31	27	24
7	58	45	37	31	54	43	35	29	38	31	27	33	28	24	29	25	21
8	54	41	33	27	50	39	31	26	34	28	24	30	25	21	26	22	19
9	50	37	30	24	47	35	28	23	31	25	21	28	23	19	24	20	17
10	47	34	27	22	44	33	26	21	29	23	19	26	21	17	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9622	9622	9622
5°	9649	9371	9388
10°	9586	9187	9160
15°	9496	8980	8904
20°	9363	8755	8654
25°	9213	8507	8386
30°	9052	8262	8112
35°	8868	8012	7867
40°	8720	7771	7614
45°	8503	7545	7391
50°	8318	7289	7155
55°	8126	7042	6883
60°	7829	6734	6628
65°	7501	6402	6320
70°	7103	6023	5965
75°	6550	5602	5627
80°	5923	5172	5272
85°	5094	4741	4985

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8503 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.8	1.9
10°-20°	320.3	5.3
20°-30°	484.4	8.1
30°-40°	586.0	9.8
40°-50°	619.5	10.3
50°-60°	583.0	9.7
60°-70°	483.8	8.1
70°-80°	339.5	5.7
80°-90°	192.9	3.2
90°-100°	160.3	2.7
100°-110°	223.1	3.7
110°-120°	292.3	4.9
120°-130°	342.7	5.7
130°-140°	362.9	6.1
140°-150°	345.8	5.8
150°-160°	288.6	4.8
160°-170°	192.0	3.2
170°-180°	67.2	1.1
0°-30°	916.5	15.3
0°-40°	1502.5	25.1
0°-60°	2705.0	45.1
0°-90°	3721.1	62.1
90°-120°	675.6	11.3
90°-150°	1727.0	28.8
90°-180°	2275.0	37.9
0°-180°	5996.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1180	1180	1180	1180	1180	
5°	1181	1177	1168	1179	1177	112
15°	1132	1134	1130	1142	1140	319
25°	1036	1044	1048	1062	1064	477
35°	906	922	936	954	958	568
45°	756	781	806	828	835	584
55°	592	620	659	686	694	528
65°	410	452	497	530	540	406
75°	227	276	332	369	381	241
85°	70	126	185	225	238	73
90°	23	82	143	184	196	17
95°	50	99	157	194	206	49
105°	140	167	218	253	265	149
115°	248	259	301	329	338	245
125°	354	353	385	409	416	316
135°	453	456	465	485	492	351
145°	548	549	550	557	560	343
155°	626	626	626	628	626	288
165°	682	680	679	682	680	192
175°	709	707	706	710	706	67
180°	710	710	710	710	710	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1180.0	1180.0	1180.0	1180.0	1180.0
2.5°	1185.3	1181.3	1170.7	1180.0	1178.6
5°	1181.3	1177.3	1168.1	1178.6	1177.3
7.5°	1173.4	1170.7	1162.8	1174.7	1173.4
10°	1162.8	1161.5	1154.9	1166.8	1165.4
12.5°	1148.3	1148.3	1144.3	1154.9	1154.9
15°	1132.4	1133.7	1129.8	1141.7	1140.3
17.5°	1111.3	1115.2	1113.9	1125.8	1124.5
20°	1088.8	1092.8	1094.1	1107.3	1107.3
22.5°	1063.7	1069.0	1071.6	1084.8	1087.5
25°	1035.9	1043.9	1047.8	1062.4	1063.7
27.5°	1005.6	1017.4	1022.7	1035.9	1037.3
30°	975.2	985.7	995.0	1009.5	1012.2
32.5°	942.1	955.3	965.9	983.1	985.7
35°	906.4	922.3	935.5	954.0	958.0
37.5°	870.8	889.3	905.1	923.6	927.6
40°	836.4	853.6	872.1	891.9	897.2
42.5°	796.8	816.6	839.1	861.5	865.5
45°	755.8	780.9	806.0	828.5	835.1
47.5°	717.5	742.6	771.7	794.1	802.1
50°	675.2	704.3	733.4	759.8	767.7
52.5°	632.9	662.0	696.4	722.8	730.7
55°	592.0	619.7	659.4	685.8	693.7
57.5°	545.7	580.1	618.4	650.1	656.7
60°	500.8	535.1	578.8	609.1	619.7
62.5°	457.2	495.5	539.1	569.5	580.1
65°	409.6	451.9	496.8	529.9	540.4
67.5°	364.7	409.6	457.2	490.2	500.8
70°	318.4	363.4	413.6	449.3	458.5
72.5°	273.5	319.8	373.9	408.3	418.9
75°	227.3	276.2	331.7	368.7	380.6
77.5°	183.7	235.2	293.3	330.3	343.6
80°	144.0	196.9	255.0	294.7	305.2
82.5°	104.4	159.9	218.0	259.0	270.9
85°	70.0	125.5	185.0	224.6	237.8
87.5°	43.6	97.8	155.9	194.2	206.1
90°	22.7	81.7	142.9	184.5	196.2
92.5°	34.1	87.5	147.1	185.7	196.9
95°	50.2	98.7	156.8	194.0	205.9
97.5°	68.7	111.4	169.9	206.4	218.3
100°	91.4	128.0	184.5	221.3	230.5
102.5°	116.7	146.4	201.0	237.0	248.1
105°	139.9	166.9	218.0	252.6	264.9
107.5°	166.9	189.9	236.7	271.9	280.6
110°	193.0	212.6	258.3	287.6	299.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	220.2	236.1	278.6	307.7	318.3
115°	247.5	259.4	300.6	329.1	337.8
117.5°	274.4	282.4	321.5	347.5	356.5
120°	300.0	306.2	342.9	366.5	378.2
122.5°	328.1	328.6	363.8	388.5	395.1
125°	354.2	352.9	385.4	409.4	416.2
127.5°	379.0	379.3	404.6	427.3	436.0
130°	404.1	404.3	425.5	448.2	453.9
132.5°	431.0	430.7	446.0	467.4	474.8
135°	452.7	456.0	465.3	485.3	491.6
137.5°	478.5	478.8	485.2	503.4	510.5
140°	504.3	504.1	505.4	522.1	528.1
142.5°	526.6	527.7	525.9	540.4	545.7
145°	548.1	549.0	549.5	556.9	560.5
147.5°	570.1	571.5	571.0	571.7	576.5
150°	589.8	590.7	590.7	590.7	590.2
152.5°	607.2	608.3	608.9	610.5	608.9
155°	626.5	626.5	625.9	628.1	625.9
157.5°	642.9	641.8	641.8	643.5	641.8
160°	657.2	656.7	656.1	657.8	655.0
162.5°	670.4	668.8	668.2	671.5	668.8
165°	682.0	680.3	679.2	682.5	680.3
167.5°	691.3	689.1	689.1	692.4	689.1
170°	699.0	696.3	696.8	700.1	696.3
172.5°	704.5	702.3	702.3	706.1	702.3
175°	709.4	706.7	706.1	710.0	706.1
177.5°	711.6	708.9	708.9	712.7	708.3
180°	710.5	710.5	710.5	710.5	710.5

(END OF REPORT)