

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: P1024978

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

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1024978
REPORT IS A COMBINATION OF REPORTS P995353 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-D
Description: Define 4 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

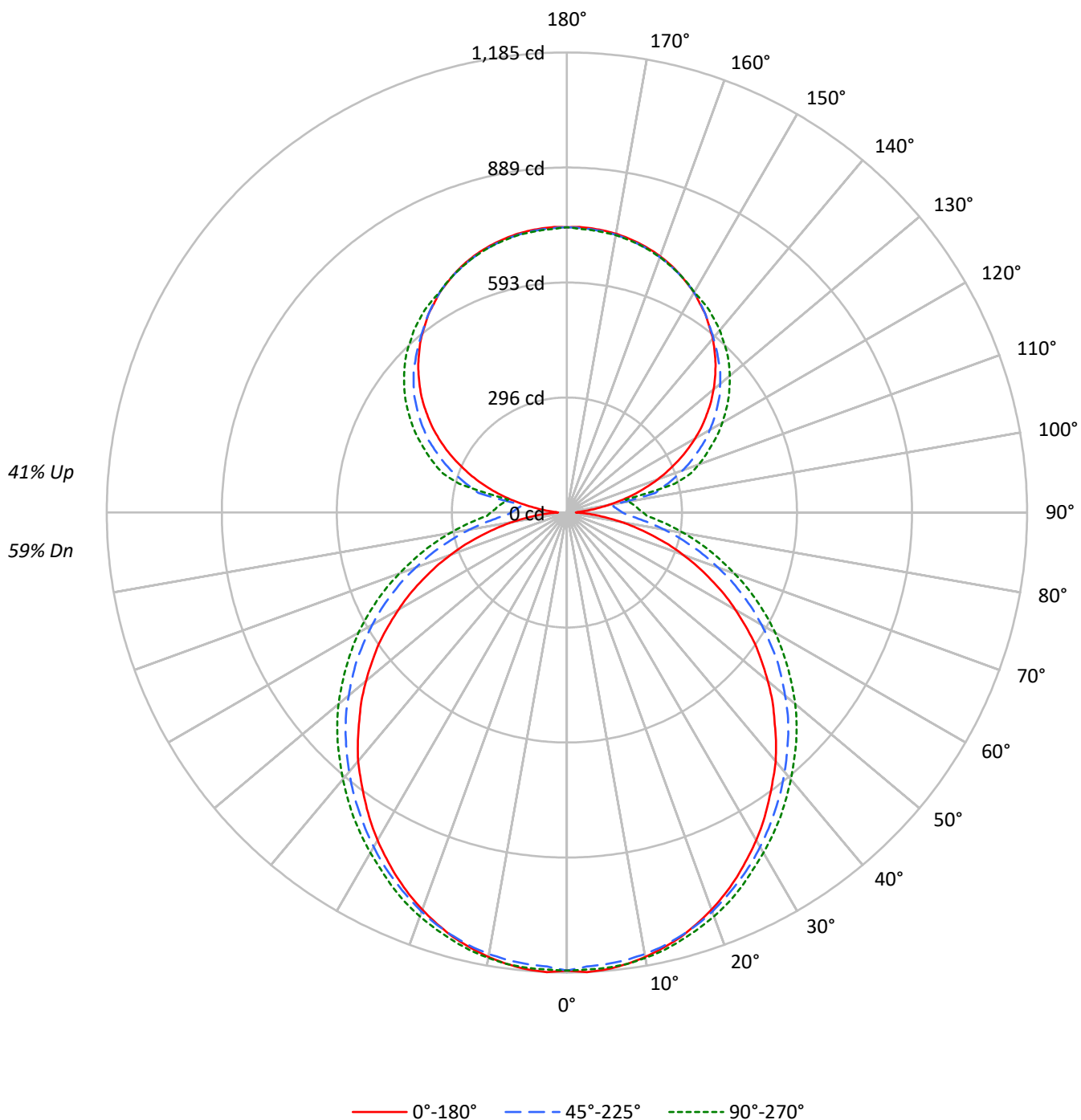
Lumens per Lamp: N/A
Luminaire Lumens: 6298.0 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 62.2
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
RCR																	
0	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64
1	99	94	89	85	92	87	84	80	76	73	70	65	63	61	55	54	52
2	89	81	74	69	83	76	70	65	66	61	57	56	53	50	48	45	43
3	81	71	63	57	75	66	59	54	58	52	47	49	45	42	42	39	36
4	74	63	54	48	69	59	51	45	51	45	40	44	39	35	37	34	31
5	68	56	47	41	63	52	44	39	45	39	34	39	34	30	33	30	26
6	63	50	41	35	58	47	39	33	41	35	30	35	30	26	30	26	23
7	58	45	37	31	54	42	35	29	37	31	26	32	27	23	28	24	20
8	54	41	33	27	50	38	31	26	34	28	23	29	24	21	25	21	18
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	16
10	47	34	27	22	43	32	25	21	28	23	19	25	20	17	22	18	15

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	1.8
10°-20°	320.3	5.1
20°-30°	484.4	7.7
30°-40°	586.0	9.3
40°-50°	619.5	9.8
50°-60°	583.0	9.3
60°-70°	483.8	7.7
70°-80°	339.5	5.4
80°-90°	192.9	3.1
90°-100°	138.3	2.2
100°-110°	245.0	3.9
110°-120°	363.3	5.8
120°-130°	421.3	6.7
130°-140°	430.3	6.8
140°-150°	392.2	6.2
150°-160°	314.1	5.0
160°-170°	202.6	3.2
170°-180°	69.8	1.1
0°-30°	916.5	14.6
0°-40°	1502.5	23.9
0°-60°	2705.0	42.9
0°-90°	3721.1	59.1
90°-120°	746.6	11.9
90°-150°	1990.4	31.6
90°-180°	2577.0	40.9
0°-180°	6298.0	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	16
95°	47	72	127	166	178	51
105°	177	207	259	297	287	187
115°	317	330	372	402	411	312
125°	439	440	472	499	507	393
135°	541	541	552	574	583	417
145°	622	623	623	631	638	389
155°	681	681	680	682	680	314
165°	718	716	716	720	715	203
175°	735	731	732	737	730	70
180°	735	735	735	735	735	

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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°	28.0	73.2	134.4	174.7	185.3
95°	47.4	72.3	127.1	166.0	178.4
97.5°	73.6	124.0	120.5	157.5	170.0
100°	104.6	148.9	124.6	150.9	160.7
102.5°	140.9	176.6	233.4	144.1	154.6
105°	177.3	207.0	258.7	296.6	287.4
107.5°	213.0	237.2	287.2	323.0	334.5
110°	248.0	268.1	317.6	349.1	361.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	281.8	301.0	345.7	374.2	387.0
115°	316.7	330.3	372.0	402.2	411.4
117.5°	349.2	359.4	400.6	427.8	438.4
120°	380.8	387.0	424.8	452.3	461.8
122.5°	411.6	412.7	449.5	476.5	484.7
125°	439.4	440.3	472.2	499.0	507.4
127.5°	467.5	466.7	495.9	519.1	527.8
130°	493.1	492.2	515.1	539.4	547.3
132.5°	517.8	517.5	535.6	558.7	566.0
135°	541.1	540.6	552.1	574.3	583.4
137.5°	563.1	561.8	569.9	590.8	596.8
140°	584.6	584.4	586.7	605.6	612.7
142.5°	602.5	604.7	603.9	619.5	624.8
145°	622.3	622.6	622.6	631.1	637.5
147.5°	637.7	639.7	639.1	641.0	646.8
150°	654.7	655.6	655.0	655.0	655.6
152.5°	667.7	669.3	668.2	669.3	668.8
155°	680.9	681.4	679.8	682.0	680.3
157.5°	692.4	692.4	690.2	693.0	690.2
160°	702.3	700.6	700.1	703.4	700.1
162.5°	711.1	708.9	708.3	711.6	707.8
165°	718.2	715.5	715.5	719.9	714.9
167.5°	724.3	721.5	721.0	725.9	720.4
170°	729.2	725.9	726.5	730.9	725.4
172.5°	732.5	729.2	729.8	734.2	728.1
175°	734.7	731.4	732.0	736.9	730.3
177.5°	736.4	732.5	733.6	738.0	731.4
180°	734.7	734.7	734.7	734.7	734.7

(END OF REPORT)