

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060249

Luminaire Tested: S124RDRP-S1020D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060249
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1020D850-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

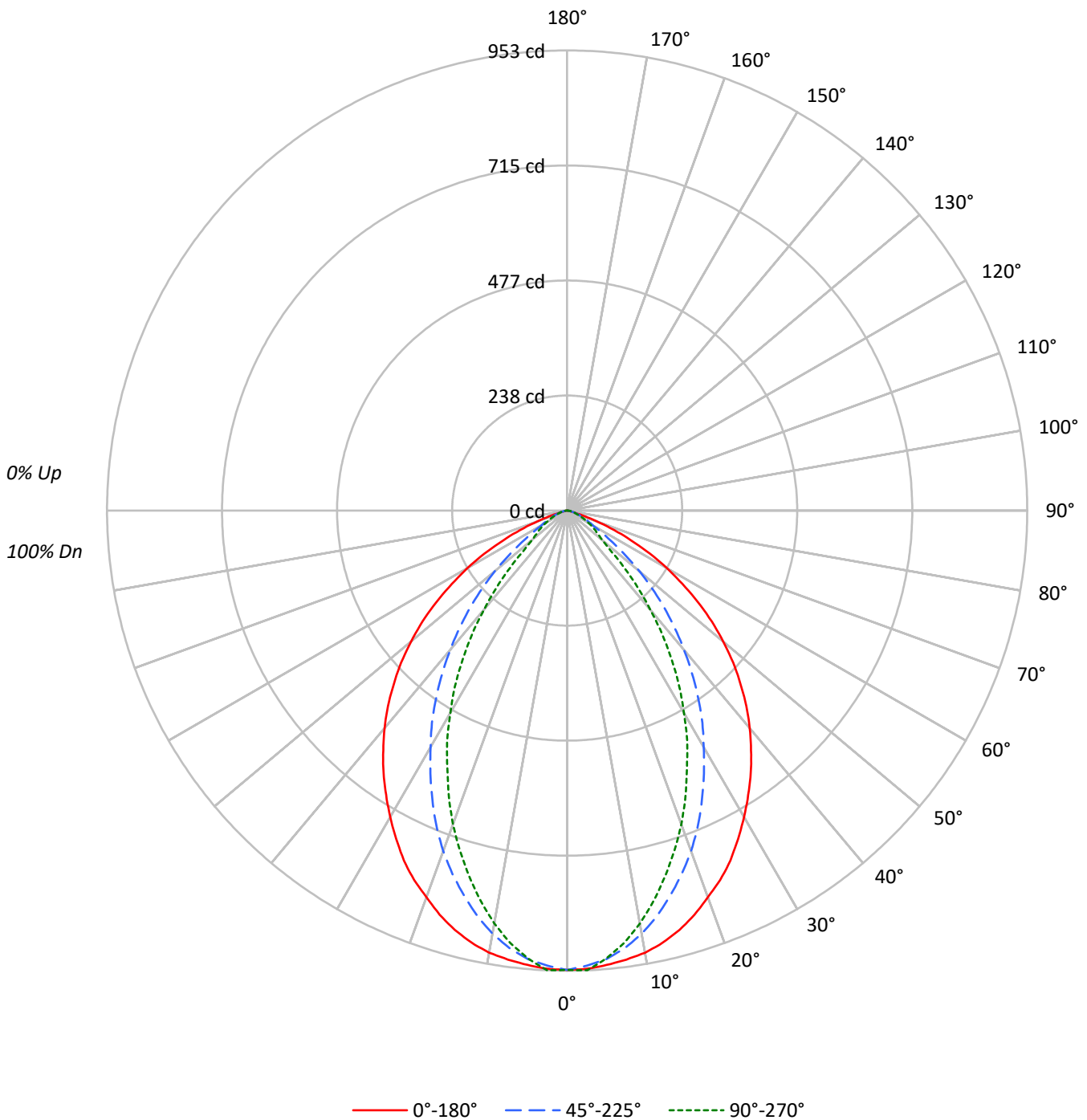
Lumens per Lamp: N/A
Luminaire Lumens: 1402.5 lumens
Efficiency: N/A
Efficacy: 40.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8192	8192	8192
5°	8165	8061	8049
10°	8130	7780	7592
15°	8014	7357	6987
20°	7808	6876	6336
25°	7600	6276	5575
30°	7287	5622	4810
35°	6972	4972	3972
40°	6612	4232	3013
45°	6184	3459	2023
50°	5653	2620	1257
55°	4968	1730	1066
60°	4108	1061	877
65°	2975	819	709
70°	1619	607	539
75°	356	446	489
80°	268	332	397
85°	267	267	395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6184 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.1	6.3
10°-20°	234.1	16.7
20°-30°	310.1	22.1
30°-40°	307.8	21.9
40°-50°	236.8	16.9
50°-60°	141.2	10.1
60°-70°	64.2	4.6
70°-80°	16.6	1.2
80°-90°	3.7	0.3
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°	632.3	45.1
0°-40°	940.1	67.0
0°-60°	1318.1	94.0
0°-90°	1402.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1402.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	951	951	951	951	951	
5°	945	946	932	932	931	90
15°	899	876	825	797	784	253
25°	800	742	660	606	587	367
35°	663	580	473	401	378	414
45°	508	409	284	198	166	391
55°	331	236	115	72	71	295
65°	146	87	40	35	35	147
75°	11	13	13	15	15	22
85°	3	3	3	4	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	951.3	951.3	951.3	951.3	951.3
2.5°	949.9	951.3	943.2	949.9	952.6
5°	944.6	945.9	932.5	932.5	931.2
7.5°	937.9	935.2	913.8	905.7	903.1
10°	929.8	920.5	889.7	873.6	868.2
12.5°	916.4	901.7	860.2	837.4	828.0
15°	899.0	876.3	825.3	797.2	783.8
17.5°	877.6	849.5	789.2	753.0	738.3
20°	852.1	814.6	750.3	704.8	691.4
22.5°	828.0	781.1	707.4	655.2	640.4
25°	799.9	742.3	660.5	605.6	586.8
27.5°	766.4	704.8	613.6	557.4	538.6
30°	732.9	664.6	565.4	506.5	483.7
32.5°	698.1	623.0	521.2	454.2	432.8
35°	663.2	580.1	473.0	400.6	377.8
37.5°	625.7	537.3	424.7	349.7	324.2
40°	588.2	495.7	376.5	300.1	268.0
42.5°	549.3	452.9	329.6	249.2	217.1
45°	507.8	408.7	284.0	198.3	166.1
47.5°	466.3	367.1	238.5	148.7	119.2
50°	422.0	322.9	195.6	108.5	93.8
52.5°	377.8	280.0	152.7	84.4	80.4
55°	330.9	235.8	115.2	72.4	71.0
57.5°	282.7	195.6	83.1	63.0	60.3
60°	238.5	158.1	61.6	53.6	50.9
62.5°	192.9	119.2	50.9	44.2	41.5
65°	146.0	87.1	40.2	34.8	34.8
67.5°	105.8	59.0	32.2	28.1	26.8
70°	64.3	36.2	24.1	22.8	21.4
72.5°	32.2	21.4	18.8	17.4	17.4
75°	10.7	13.4	13.4	14.7	14.7
77.5°	8.0	9.4	9.4	10.7	10.7
80°	5.4	6.7	6.7	8.0	8.0
82.5°	4.0	4.0	5.4	5.4	6.7
85°	2.7	2.7	2.7	4.0	4.0
87.5°	1.3	1.3	1.3	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	16.43	17.76	16.79	18.07	18.39	7.98	9.31	8.34	9.63	9.94
	3H	16.93	18.12	17.31	18.44	18.81	8.79	9.97	9.17	10.30	10.67
	4H	16.90	18.00	17.30	18.35	18.73	9.07	10.17	9.48	10.52	10.91
	6H	16.84	17.84	17.25	18.21	18.61	9.24	10.25	9.66	10.62	11.02
	8H	16.80	17.75	17.23	18.14	18.55	9.31	10.26	9.74	10.65	11.06
	12H	16.76	17.67	17.19	18.05	18.48	9.35	10.27	9.79	10.65	11.08
4H	2H	16.27	17.37	16.67	17.72	18.10	8.42	9.52	8.82	9.87	10.25
	3H	16.82	17.72	17.23	18.12	18.52	9.38	10.28	9.79	10.68	11.08
	4H	16.79	17.59	17.23	18.01	18.45	9.74	10.54	10.18	10.96	11.40
	6H	16.74	17.42	17.20	17.87	18.34	9.99	10.68	10.46	11.13	11.59
	8H	16.69	17.33	17.16	17.78	18.25	10.08	10.72	10.55	11.17	11.64
	12H	16.65	17.22	17.14	17.70	18.17	10.16	10.72	10.64	11.20	11.68
8H	4H	16.68	17.32	17.15	17.77	18.24	9.83	10.47	10.30	10.92	11.39
	6H	16.62	17.14	17.12	17.64	18.12	10.14	10.66	10.64	11.16	11.64
	8H	16.57	17.04	17.09	17.56	18.05	10.27	10.74	10.80	11.26	11.75
	12H	16.54	16.95	17.05	17.45	18.02	10.41	10.82	10.92	11.32	11.89
12H	4H	16.64	17.20	17.12	17.69	18.16	9.81	10.37	10.29	10.85	11.33
	6H	16.56	17.03	17.09	17.55	18.04	10.12	10.59	10.64	11.11	11.60
	8H	16.54	16.95	17.05	17.45	18.02	10.29	10.71	10.81	11.20	11.77