

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: P1060249

Luminaire Tested: S124RDR-S1020D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
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: S124RDR-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

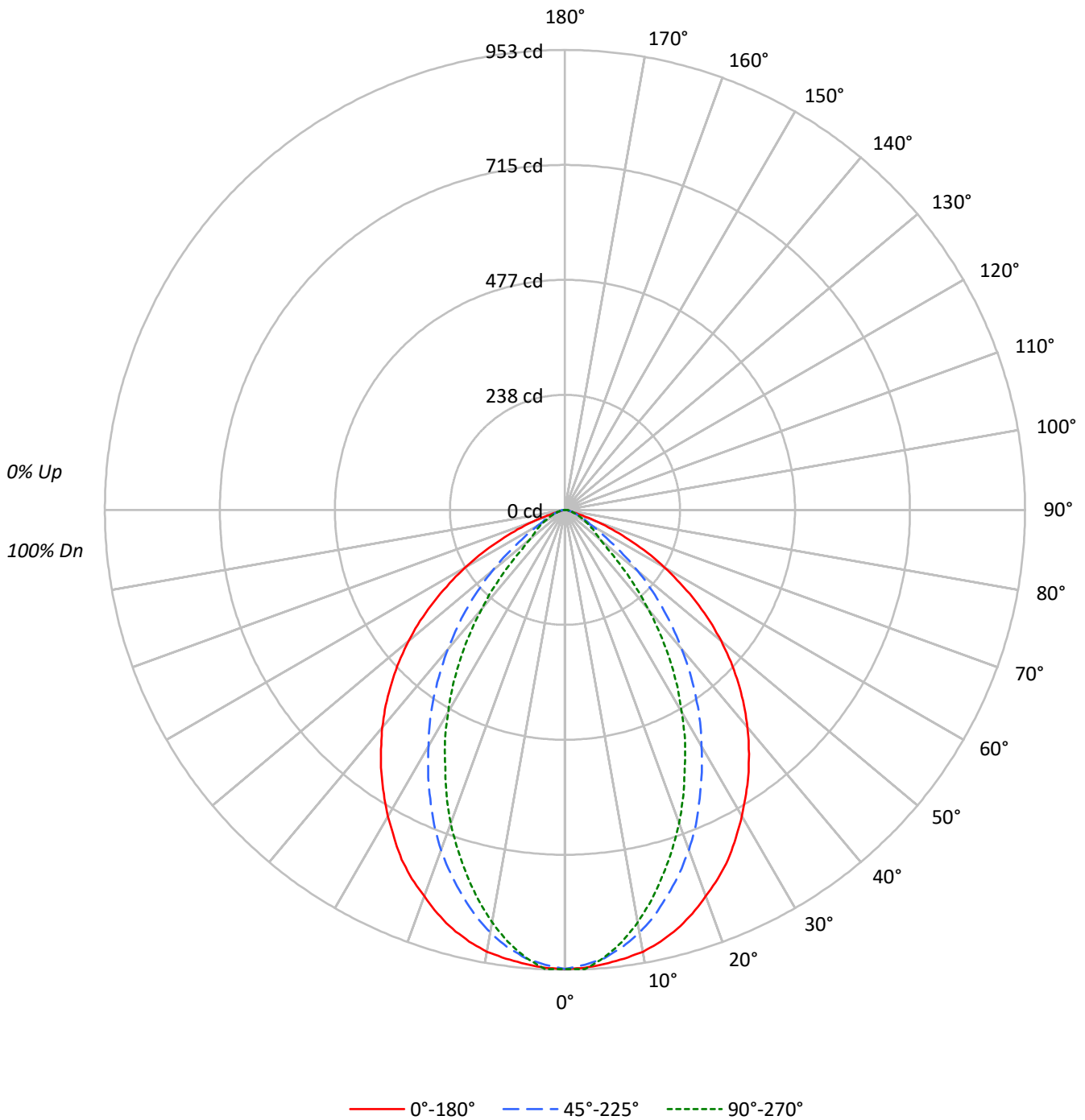
Lumens per Lamp: N/A
Luminaire Lumens: 1402.5 lumens
Efficiency: N/A
Efficacy: 40.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

(END OF REPORT)