

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: P1060241

Luminaire Tested: S124RDRP-S1020D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060241
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-77)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1020D840-X4F0-XX-UDD-SVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

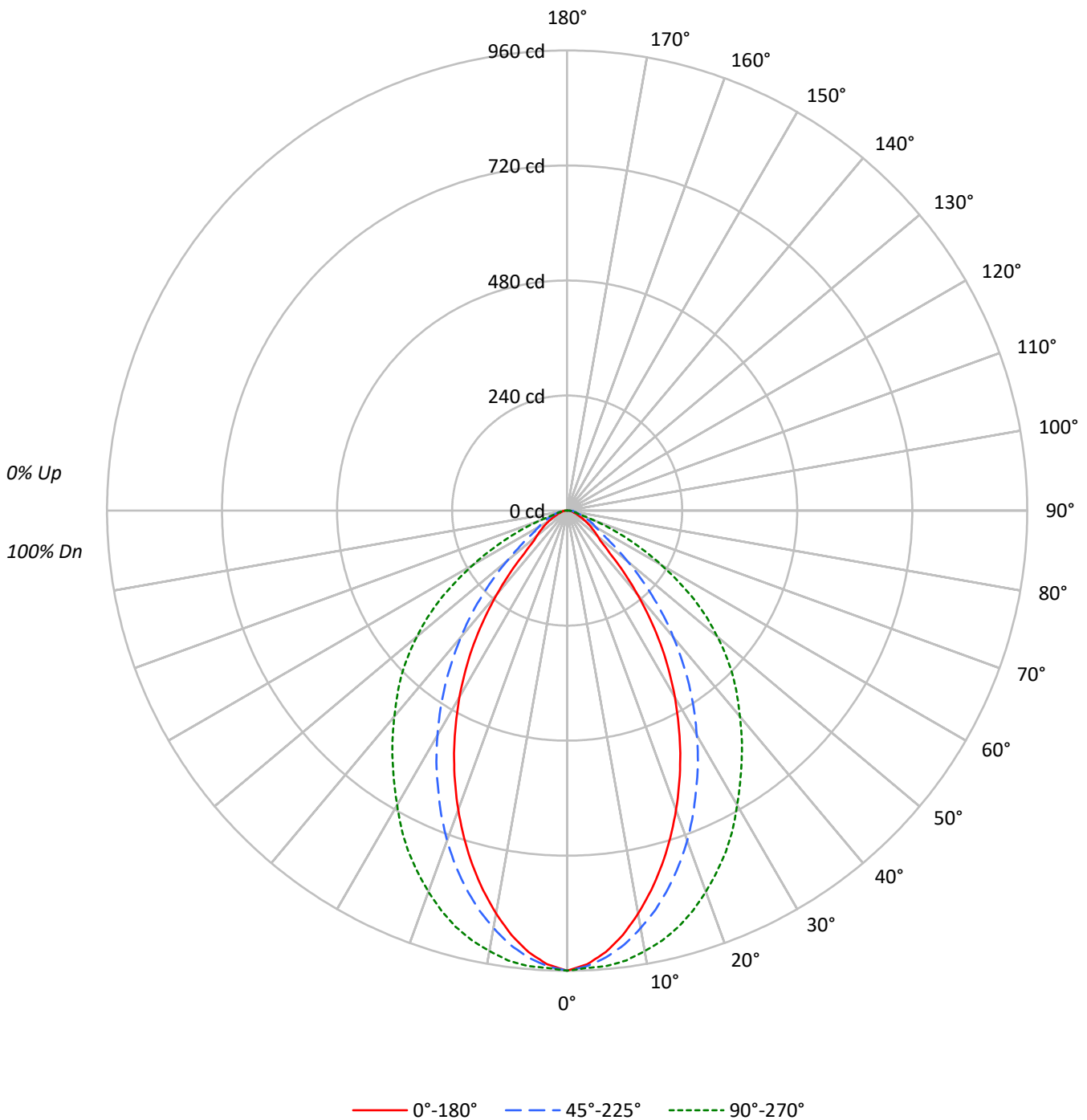
Lumens per Lamp: N/A
Luminaire Lumens: 1349.7 lumens
Efficiency: N/A
Efficacy: 38.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70
4	90	80	73	68	88	79	72	67	77	71	67	75	70	66	73	68	65	63
5	84	73	66	61	82	72	65	60	70	64	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	49	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	45	43
9	65	54	46	42	64	53	46	42	52	46	41	51	45	41	50	45	41	39
10	62	50	43	39	61	50	43	38	49	43	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8265	8265	8265
5°	7991	8086	8244
10°	7464	7731	8158
15°	6815	7272	8013
20°	6087	6714	7755
25°	5303	6056	7449
30°	4469	5379	7055
35°	3569	4660	6675
40°	2567	3871	6301
45°	1547	3048	5964
50°	1112	2209	5481
55°	935	1485	4858
60°	758	1178	3911
65°	597	1070	2812
70°	524	891	1506
75°	489	812	732
80°	486	848	664
85°	721	1205	840

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5964 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.1	6.5
10°-20°	230.9	17.1
20°-30°	299.6	22.2
30°-40°	287.9	21.3
40°-50°	213.6	15.8
50°-60°	130.9	9.7
60°-70°	63.6	4.7
70°-80°	24.2	1.8
80°-90°	10.9	0.8
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°	618.5	45.8
0°-40°	906.5	67.2
0°-60°	1251.0	92.7
0°-90°	1349.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1349.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	960	960	960	960	960	
5°	924	938	935	944	954	86
15°	764	786	816	865	899	213
25°	558	586	637	719	784	255
35°	340	370	443	548	635	210
45°	127	159	250	382	490	105
55°	62	65	99	224	324	56
65°	29	32	52	83	138	30
75°	15	23	24	22	22	16
85°	7	12	12	11	8	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	959.8	959.8	959.8	959.8	959.8
2.5°	947.6	958.6	951.3	953.7	954.9
5°	924.4	937.9	935.4	944.0	953.7
7.5°	892.7	908.5	913.4	930.5	946.4
10°	853.6	873.1	884.1	912.2	933.0
12.5°	810.8	831.6	852.4	890.2	918.3
15°	764.4	786.4	815.7	864.6	898.8
17.5°	715.6	740.0	775.4	834.1	874.3
20°	664.3	690.0	732.7	797.4	846.3
22.5°	611.8	638.7	686.3	758.3	815.7
25°	558.1	586.2	637.4	719.3	784.0
27.5°	503.1	532.4	591.0	677.7	748.6
30°	449.4	477.5	541.0	635.0	709.5
32.5°	394.4	423.7	492.1	591.0	671.6
35°	339.5	370.0	443.3	548.3	635.0
37.5°	283.3	316.3	393.2	506.8	598.4
40°	228.4	260.1	344.4	464.0	560.5
42.5°	174.6	208.8	298.0	421.3	525.1
45°	127.0	158.8	250.3	382.2	489.7
47.5°	95.3	114.8	206.4	345.6	450.6
50°	83.0	86.7	164.9	305.3	409.1
52.5°	72.0	74.5	128.2	261.3	367.6
55°	62.3	64.7	98.9	223.5	323.6
57.5°	52.5	55.0	79.4	186.8	273.5
60°	44.0	46.4	68.4	149.0	227.1
62.5°	36.6	37.9	61.1	113.6	182.0
65°	29.3	31.8	52.5	83.0	138.0
67.5°	24.4	26.9	42.7	57.4	96.5
70°	20.8	26.9	35.4	40.3	59.8
72.5°	17.1	24.4	29.3	28.1	28.1
75°	14.7	23.2	24.4	22.0	22.0
77.5°	12.2	20.8	19.5	18.3	17.1
80°	9.8	17.1	17.1	14.7	13.4
82.5°	8.5	13.4	13.4	13.4	11.0
85°	7.3	12.2	12.2	11.0	8.5
87.5°	4.9	9.8	11.0	9.8	6.1
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	7.16	8.49	7.52	8.81	9.12	16.25	17.59	16.61	17.90	18.22
	3H	8.20	9.39	8.58	9.72	10.08	16.75	17.94	17.13	18.27	18.63
	4H	8.72	9.82	9.12	10.17	10.56	16.77	17.87	17.17	18.22	18.61
	6H	9.17	10.18	9.58	10.55	10.95	16.76	17.78	17.18	18.15	18.54
	8H	9.36	10.32	9.79	10.71	11.11	16.76	17.72	17.19	18.11	18.52
	12H	9.57	10.49	10.00	10.87	11.30	16.76	17.68	17.19	18.06	18.49
4H	2H	8.25	9.35	8.65	9.71	10.09	16.14	17.25	16.54	17.60	17.98
	3H	9.52	10.42	9.93	10.83	11.23	16.72	17.62	17.13	18.03	18.43
	4H	10.22	11.03	10.66	11.45	11.90	16.76	17.57	17.20	17.99	18.44
	6H	10.86	11.56	11.32	12.00	12.47	16.82	17.52	17.28	17.96	18.43
	8H	11.10	11.75	11.57	12.20	12.67	16.83	17.49	17.30	17.93	18.40
	12H	11.37	11.95	11.86	12.43	12.91	16.87	17.44	17.35	17.93	18.40
8H	4H	10.65	11.30	11.12	11.75	12.22	16.71	17.37	17.18	17.81	18.28
	6H	11.53	12.06	12.03	12.56	13.04	16.81	17.34	17.31	17.84	18.32
	8H	11.93	12.41	12.45	12.93	13.42	16.87	17.35	17.39	17.86	18.36
	12H	12.41	12.83	12.92	13.33	13.90	16.97	17.39	17.48	17.89	18.46
12H	4H	10.69	11.27	11.18	11.75	12.23	16.69	17.26	17.17	17.75	18.22
	6H	11.64	12.12	12.16	12.64	13.13	16.79	17.27	17.31	17.78	18.27
	8H	12.15	12.58	12.67	13.07	13.65	16.89	17.32	17.41	17.81	18.38