

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: P1060450

Luminaire Tested: S124RDRP-S350D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060450
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S350D940-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

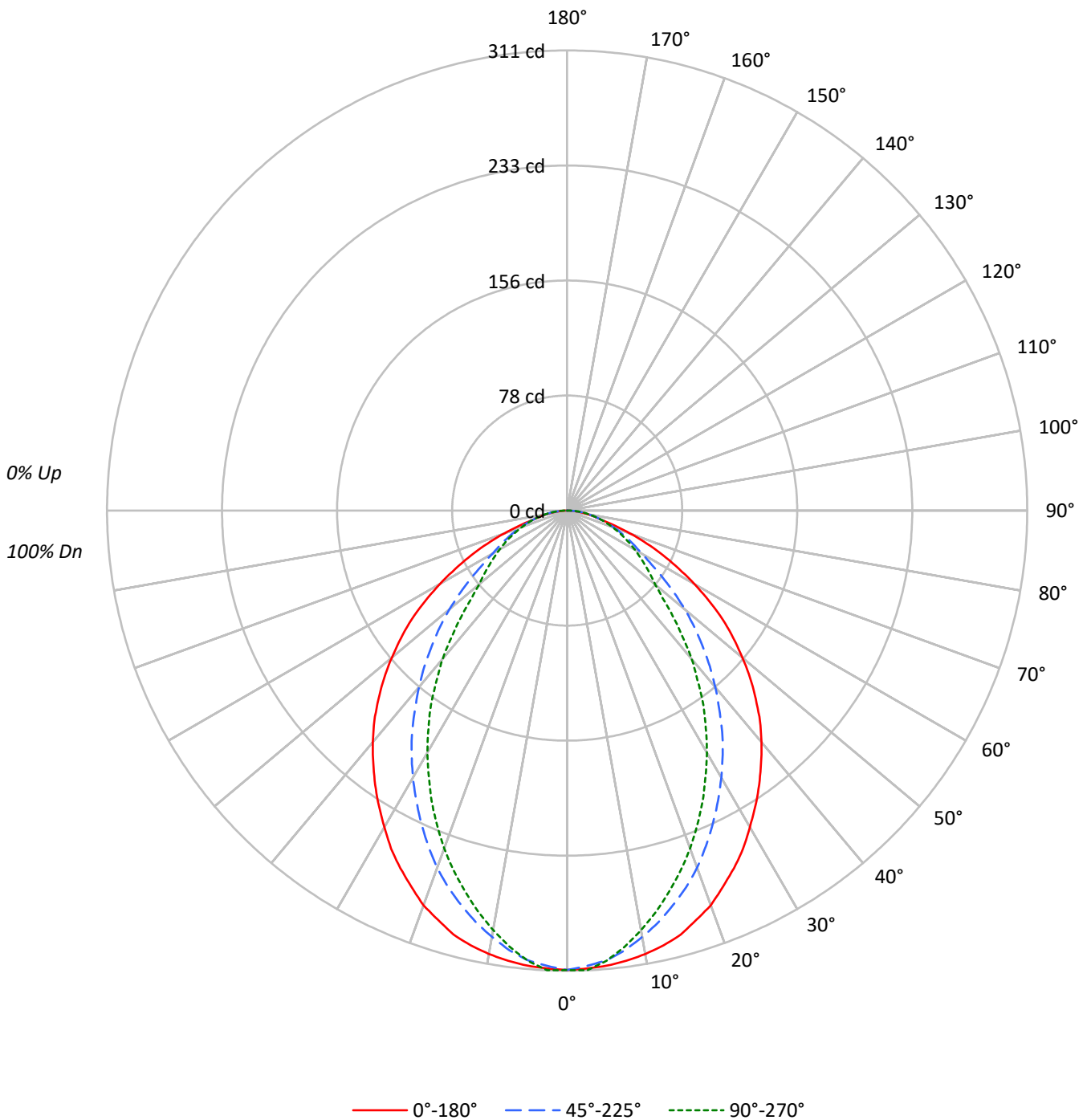
Lumens per Lamp: N/A
Luminaire Lumens: 598.8 lumens
Efficiency: N/A
Efficacy: 47.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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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CATALOG NUMBER: S124RDRP-S350D940-X4F0-XX-UDD-WVL-B

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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2674	2674	2674
5°	2668	2637	2640
10°	2661	2558	2517
15°	2645	2462	2375
20°	2602	2354	2227
25°	2534	2216	2059
30°	2456	2072	1879
35°	2378	1922	1688
40°	2297	1751	1473
45°	2196	1573	1231
50°	2072	1388	1041
55°	1928	1179	964
60°	1710	999	911
65°	1457	921	862
70°	1138	854	818
75°	779	789	789
80°	669	744	759
85°	573	721	790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2196 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.9	4.8
10°-20°	78.5	13.1
20°-30°	108.9	18.2
30°-40°	116.8	19.5
40°-50°	103.4	17.3
50°-60°	78.0	13.0
60°-70°	50.5	8.4
70°-80°	25.9	4.3
80°-90°	7.9	1.3
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°	216.3	36.1
0°-40°	333.0	55.6
0°-60°	514.4	85.9
0°-90°	598.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	598.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	310	310	310	310	310	
5°	309	309	305	305	305	29
15°	297	290	276	269	266	83
25°	267	252	233	221	217	123
35°	226	206	183	166	161	141
45°	180	157	129	109	101	139
55°	128	107	78	66	64	114
65°	72	58	45	43	42	71
75°	23	24	24	24	24	28
85°	6	6	7	8	8	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	310.5	310.5	310.5	310.5	310.5
2.5°	309.8	310.9	308.0	310.2	310.9
5°	308.7	309.1	305.1	305.4	305.4
7.5°	306.9	306.1	299.6	297.8	297.4
10°	304.3	302.1	292.6	289.0	287.9
12.5°	301.0	297.0	285.0	279.9	277.7
15°	296.7	290.1	276.2	269.3	266.4
17.5°	290.1	281.7	267.1	258.3	255.1
20°	283.9	272.6	256.9	245.9	243.0
22.5°	275.1	263.1	245.2	233.5	229.9
25°	266.7	252.5	233.2	220.8	216.7
27.5°	257.6	241.6	220.8	207.6	202.5
30°	247.0	229.9	208.4	194.5	189.0
32.5°	236.8	218.6	195.6	180.3	174.4
35°	226.2	205.8	182.8	166.4	160.6
37.5°	215.3	193.8	168.6	152.5	144.9
40°	204.3	181.7	155.8	137.6	131.0
42.5°	193.0	169.3	142.7	123.7	115.3
45°	180.3	156.9	129.2	109.1	101.1
47.5°	167.9	144.9	116.8	94.9	87.6
50°	154.7	132.1	103.6	82.5	77.7
52.5°	141.6	119.0	90.9	73.0	70.8
55°	128.4	106.9	78.5	66.0	64.2
57.5°	113.8	94.5	67.5	59.8	58.4
60°	99.3	81.0	58.0	54.0	52.9
62.5°	85.0	69.3	51.5	48.2	47.4
65°	71.5	57.7	45.2	42.7	42.3
67.5°	58.4	47.4	39.4	37.9	37.2
70°	45.2	37.9	33.9	33.2	32.5
72.5°	33.6	30.7	28.8	28.5	28.1
75°	23.4	24.4	23.7	23.7	23.7
77.5°	18.6	19.0	19.3	19.7	19.3
80°	13.5	14.6	15.0	15.7	15.3
82.5°	9.5	10.2	11.3	11.7	12.0
85°	5.8	6.2	7.3	8.0	8.0
87.5°	2.6	2.9	3.6	4.4	4.7
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	13.86	15.35	14.22	15.67	15.98	10.42	11.92	10.78	12.23	12.54
	3H	15.06	16.40	15.44	16.73	17.09	12.11	13.46	12.49	13.78	14.15
	4H	15.37	16.63	15.77	16.98	17.35	12.79	14.05	13.19	14.40	14.78
	6H	15.57	16.73	15.98	17.10	17.49	13.34	14.50	13.75	14.87	15.26
	8H	15.63	16.73	16.05	17.12	17.53	13.56	14.66	13.98	15.05	15.45
	12H	15.66	16.72	16.09	17.10	17.53	13.73	14.79	14.16	15.17	15.60
4H	2H	14.00	15.26	14.40	15.61	15.98	11.08	12.34	11.48	12.69	13.06
	3H	15.40	16.44	15.81	16.84	17.24	12.99	14.03	13.40	14.43	14.83
	4H	15.82	16.76	16.26	17.18	17.62	13.79	14.73	14.22	15.15	15.58
	6H	16.15	16.97	16.61	17.41	17.87	14.48	15.29	14.93	15.74	16.20
	8H	16.25	17.01	16.71	17.46	17.92	14.75	15.51	15.21	15.96	16.43
	12H	16.32	17.00	16.80	17.48	17.95	14.98	15.66	15.46	16.14	16.61
8H	4H	15.95	16.72	16.42	17.16	17.63	14.11	14.87	14.57	15.31	15.78
	6H	16.37	17.01	16.87	17.50	17.97	14.94	15.57	15.43	16.06	16.54
	8H	16.53	17.10	17.05	17.61	18.10	15.30	15.87	15.81	16.38	16.87
	12H	16.66	17.16	17.17	17.65	18.22	15.63	16.13	16.14	16.63	17.19
12H	4H	15.96	16.64	16.44	17.12	17.59	14.13	14.82	14.62	15.30	15.77
	6H	16.40	16.97	16.91	17.48	17.97	15.00	15.56	15.51	16.07	16.56
	8H	16.61	17.11	17.12	17.60	18.17	15.43	15.93	15.94	16.42	16.99