

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: P1060414

Luminaire Tested: S124RDRP-S350D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060414
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-S350D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

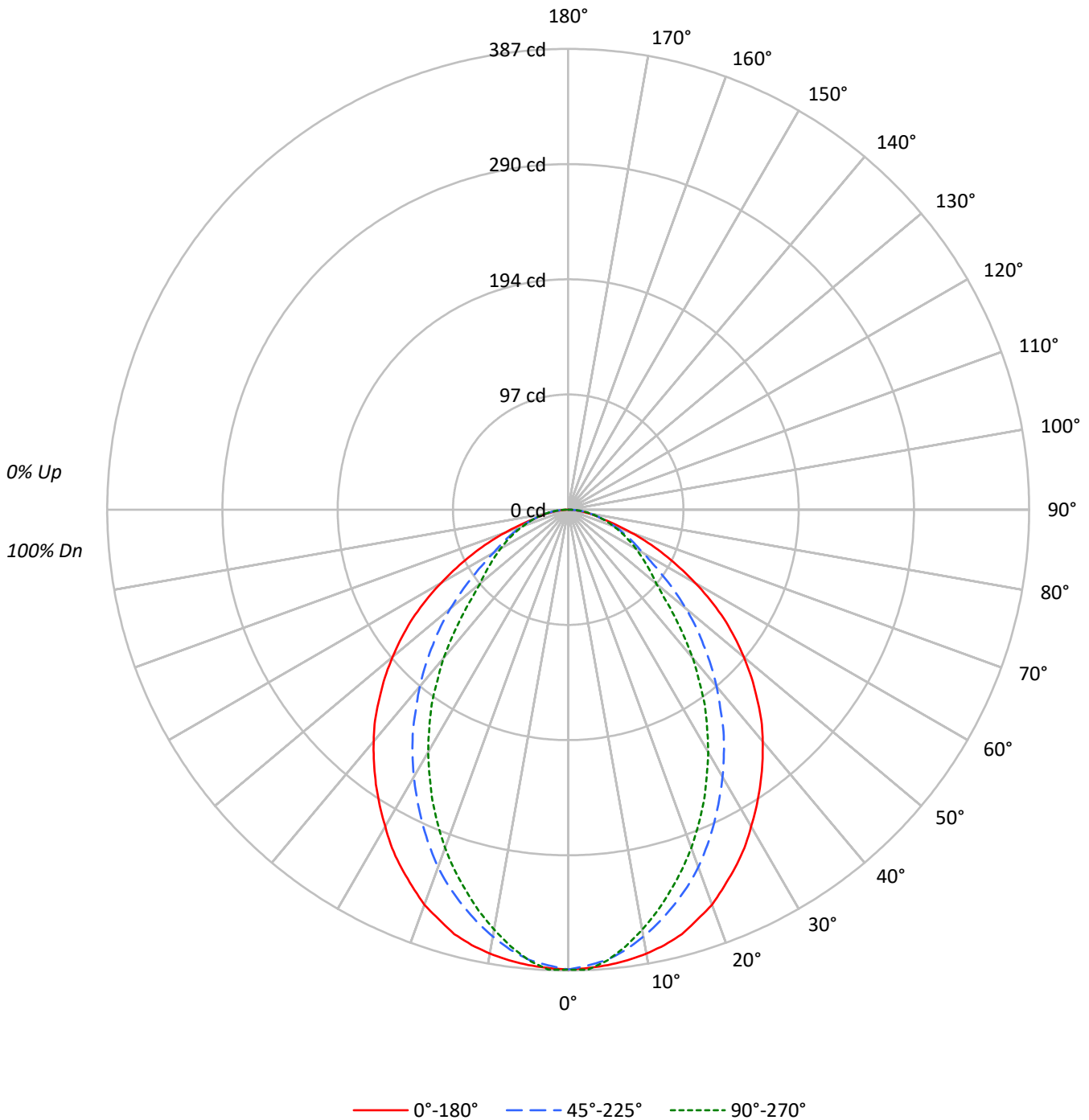
Lumens per Lamp: N/A
Luminaire Lumens: 744.7 lumens
Efficiency: N/A
Efficacy: 59.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3326	3326	3326
5°	3318	3280	3283
10°	3310	3183	3131
15°	3290	3062	2954
20°	3236	2928	2769
25°	3152	2755	2562
30°	3055	2576	2338
35°	2958	2390	2099
40°	2856	2179	1831
45°	2730	1957	1531
50°	2577	1727	1295
55°	2398	1465	1200
60°	2125	1243	1133
65°	1811	1147	1072
70°	1417	1062	1017
75°	965	981	981
80°	833	922	947
85°	721	899	988

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2730 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.9	4.8
10°-20°	97.6	13.1
20°-30°	135.5	18.2
30°-40°	145.2	19.5
40°-50°	128.7	17.3
50°-60°	96.9	13.0
60°-70°	62.8	8.4
70°-80°	32.2	4.3
80°-90°	9.9	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°	269.0	36.1
0°-40°	414.2	55.6
0°-60°	639.8	85.9
0°-90°	744.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	744.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	386	386	386	386	386	
5°	384	384	379	380	380	36
15°	369	361	344	335	331	104
25°	332	314	290	275	270	153
35°	281	256	227	207	200	176
45°	224	195	161	136	126	173
55°	160	133	98	82	80	142
65°	89	72	56	53	53	88
75°	29	30	30	30	30	34
85°	7	8	9	10	10	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	386.2	386.2	386.2	386.2	386.2
2.5°	385.3	386.6	383.0	385.7	386.6
5°	383.9	384.4	379.4	379.8	379.8
7.5°	381.7	380.8	372.6	370.3	369.9
10°	378.5	375.8	364.0	359.4	358.1
12.5°	374.4	369.4	354.4	348.1	345.4
15°	369.0	360.8	343.5	334.9	331.3
17.5°	360.8	350.3	332.2	321.3	317.2
20°	353.1	339.0	319.5	305.9	302.2
22.5°	342.2	327.2	305.0	290.4	285.9
25°	331.7	314.0	290.0	274.6	269.6
27.5°	320.4	300.4	274.6	258.2	251.9
30°	307.2	285.9	259.1	241.9	235.1
32.5°	294.5	271.8	243.2	224.2	216.9
35°	281.4	256.0	227.4	206.9	199.7
37.5°	267.8	241.0	209.7	189.7	180.2
40°	254.1	226.0	193.8	171.1	162.9
42.5°	240.1	210.6	177.4	153.8	143.4
45°	224.2	195.1	160.7	135.7	125.7
47.5°	208.8	180.2	145.2	118.0	108.9
50°	192.4	164.3	128.9	102.6	96.7
52.5°	176.1	147.9	113.0	90.8	88.0
55°	159.7	133.0	97.6	82.1	79.9
57.5°	141.6	117.5	84.0	74.4	72.6
60°	123.4	100.7	72.2	67.2	65.8
62.5°	105.7	86.2	64.0	59.9	59.0
65°	88.9	71.7	56.3	53.1	52.6
67.5°	72.6	59.0	49.0	47.2	46.3
70°	56.3	47.2	42.2	41.3	40.4
72.5°	41.8	38.1	35.9	35.4	34.9
75°	29.0	30.4	29.5	29.5	29.5
77.5°	23.1	23.6	24.1	24.5	24.1
80°	16.8	18.2	18.6	19.5	19.1
82.5°	11.8	12.7	14.1	14.5	15.0
85°	7.3	7.7	9.1	10.0	10.0
87.5°	3.2	3.6	4.5	5.4	5.9
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	14.61	16.11	14.98	16.42	16.74	11.18	12.68	11.54	12.99	13.30
	3H	15.82	17.16	16.20	17.49	17.85	12.87	14.22	13.25	14.54	14.91
	4H	16.12	17.38	16.52	17.73	18.11	13.55	14.81	13.95	15.16	15.54
	6H	16.33	17.49	16.74	17.86	18.25	14.10	15.26	14.51	15.63	16.02
	8H	16.38	17.49	16.81	17.88	18.28	14.32	15.43	14.75	15.82	16.22
	12H	16.42	17.48	16.85	17.86	18.29	14.49	15.55	14.92	15.93	16.36
4H	2H	14.75	16.01	15.15	16.36	16.74	11.84	13.10	12.24	13.45	13.83
	3H	16.16	17.20	16.57	17.60	18.00	13.75	14.79	14.16	15.19	15.60
	4H	16.58	17.52	17.02	17.94	18.38	14.55	15.49	14.98	15.91	16.35
	6H	16.91	17.73	17.37	18.17	18.63	15.24	16.06	15.70	16.50	16.96
	8H	17.01	17.77	17.47	18.21	18.68	15.51	16.28	15.98	16.72	17.19
	12H	17.08	17.76	17.56	18.24	18.71	15.74	16.43	16.23	16.91	17.38
8H	4H	16.71	17.48	17.17	17.92	18.39	14.87	15.63	15.33	16.08	16.54
	6H	17.13	17.76	17.63	18.26	18.73	15.70	16.33	16.19	16.82	17.30
	8H	17.29	17.86	17.80	18.37	18.86	16.06	16.63	16.58	17.14	17.63
	12H	17.42	17.92	17.93	18.41	18.98	16.40	16.90	16.91	17.39	17.96
12H	4H	16.72	17.40	17.20	17.88	18.35	14.90	15.58	15.38	16.06	16.53
	6H	17.16	17.73	17.67	18.24	18.72	15.76	16.33	16.27	16.84	17.32
	8H	17.37	17.87	17.88	18.36	18.93	16.19	16.69	16.70	17.18	17.75