

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



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: P1060827

Luminaire Tested: S124RDR-H350D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060827
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D927-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

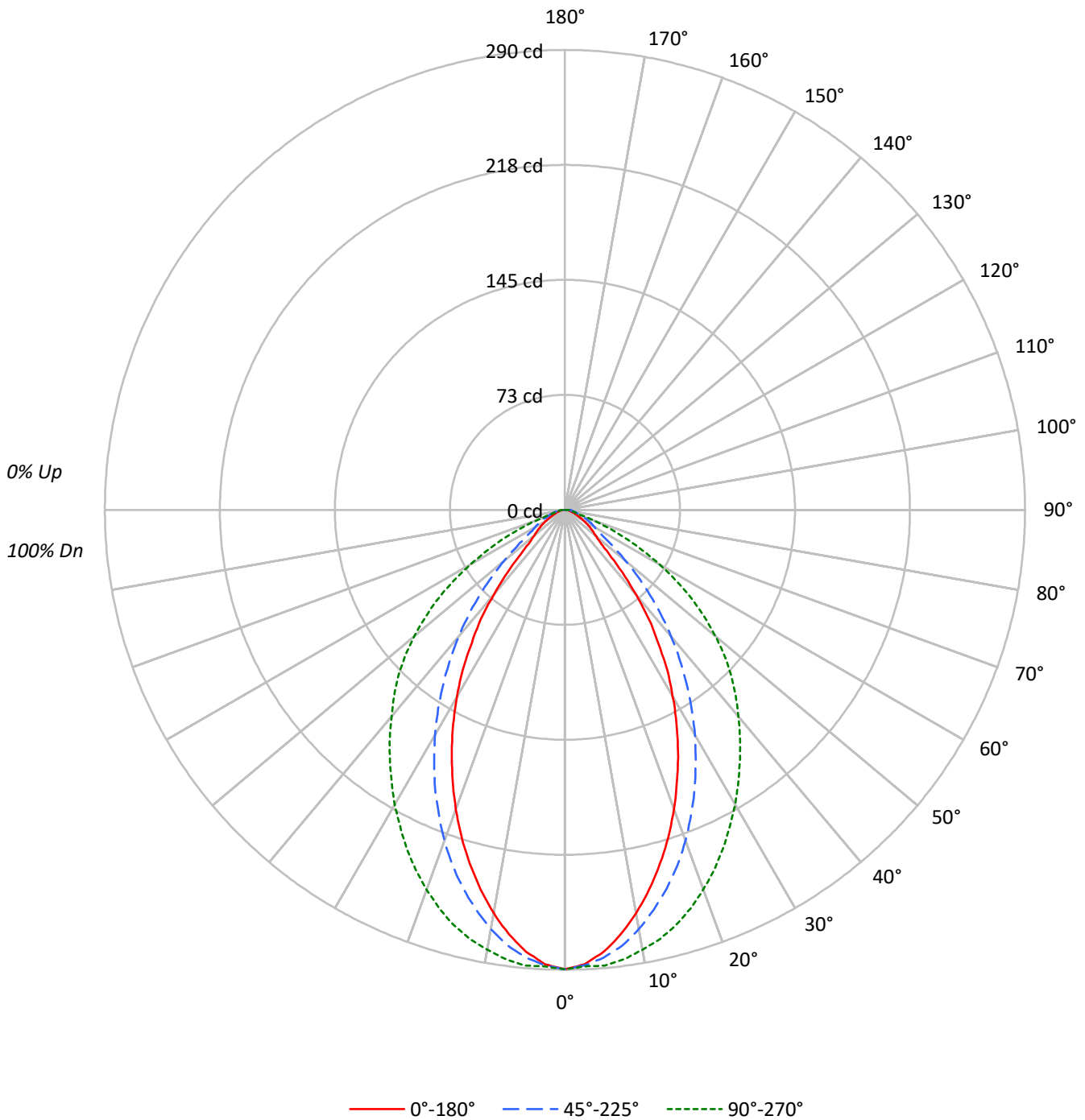
Lumens per Lamp: N/A
Luminaire Lumens: 410.1 lumens
Efficiency: N/A
Efficacy: 35.0 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89	
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79			79	
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70			70	
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63			63	
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57			57	
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51			51	
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43			43	
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36			36	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2495	2495	2495
5°	2418	2449	2493
10°	2259	2347	2462
15°	2060	2205	2416
20°	1842	2035	2335
25°	1603	1839	2239
30°	1352	1629	2134
35°	1075	1402	2022
40°	782	1168	1911
45°	473	923	1810
50°	339	668	1657
55°	287	452	1462
60°	234	369	1181
65°	185	330	852
70°	156	277	448
75°	140	260	226
80°	144	258	223
85°	188	385	257

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 1810 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.7	6.5
10°-20°	69.9	17.0
20°-30°	90.7	22.1
30°-40°	87.3	21.3
40°-50°	64.9	15.8
50°-60°	39.9	9.7
60°-70°	19.6	4.8
70°-80°	7.7	1.9
80°-90°	3.5	0.9
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°	187.2	45.7
0°-40°	274.5	66.9
0°-60°	379.3	92.5
0°-90°	410.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	410.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	290	290	290	290	290	
5°	280	284	283	286	288	26
15°	231	239	247	262	271	65
25°	169	178	194	218	236	77
35°	102	112	133	167	192	64
45°	39	48	76	117	149	32
55°	19	20	30	69	97	17
65°	9	10	16	26	42	9
75°	4	7	8	7	7	5
85°	2	4	4	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	289.7	289.7	289.7	289.7	289.7
2.5°	286.8	290.1	287.5	287.8	288.1
5°	279.7	283.9	283.3	285.8	288.4
7.5°	270.0	274.8	277.1	282.3	285.8
10°	258.3	263.8	268.4	276.8	281.6
12.5°	245.4	251.9	258.3	269.7	277.1
15°	231.1	238.6	247.3	262.2	271.0
17.5°	216.6	224.0	235.3	252.5	263.5
20°	201.0	209.1	222.1	241.2	254.8
22.5°	184.8	193.6	207.8	229.5	245.7
25°	168.7	177.7	193.6	217.9	235.7
27.5°	152.5	161.2	178.4	205.6	225.0
30°	136.0	145.0	163.8	192.3	214.6
32.5°	120.1	128.5	148.6	179.7	203.3
35°	102.3	112.0	133.4	166.7	192.3
37.5°	87.1	95.8	118.8	153.8	181.3
40°	69.6	79.3	103.9	141.1	170.0
42.5°	53.4	63.1	89.7	128.5	159.3
45°	38.8	48.2	75.8	116.9	148.6
47.5°	29.5	35.0	62.2	105.5	136.6
50°	25.3	26.9	49.9	93.2	123.7
52.5°	22.3	23.0	38.8	80.9	110.7
55°	19.1	19.7	30.1	68.6	97.4
57.5°	16.2	16.5	24.3	57.0	83.2
60°	13.6	13.9	21.4	45.6	68.6
62.5°	11.3	11.7	19.1	35.3	54.7
65°	9.1	9.7	16.2	25.9	41.8
67.5°	7.4	8.7	13.6	18.1	29.1
70°	6.2	8.4	11.0	12.6	17.8
72.5°	5.2	7.8	9.4	9.1	8.7
75°	4.2	7.4	7.8	7.1	6.8
77.5°	3.6	6.5	6.5	5.8	5.5
80°	2.9	5.2	5.2	5.2	4.5
82.5°	2.6	4.2	4.5	4.5	3.6
85°	1.9	3.6	3.9	3.9	2.6
87.5°	1.3	3.2	3.6	3.2	1.9
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	2.96	4.30	3.32	4.61	4.93	12.13	13.47	12.50	13.79	14.10
	3H	4.07	5.26	4.44	5.59	5.95	12.64	13.83	13.02	14.16	14.52
	4H	4.58	5.69	4.98	6.04	6.43	12.66	13.77	13.06	14.12	14.50
	6H	5.02	6.04	5.44	6.41	6.81	12.67	13.69	13.08	14.06	14.45
	8H	5.21	6.18	5.64	6.57	6.98	12.67	13.64	13.10	14.03	14.43
	12H	5.39	6.32	5.82	6.70	7.13	12.67	13.60	13.11	13.98	14.41
4H	2H	4.11	5.22	4.51	5.57	5.95	12.02	13.13	12.43	13.48	13.87
	3H	5.44	6.35	5.86	6.76	7.16	12.61	13.52	13.02	13.92	14.33
	4H	6.17	6.99	6.61	7.41	7.85	12.67	13.48	13.10	13.90	14.34
	6H	6.79	7.49	7.25	7.94	8.40	12.74	13.45	13.21	13.89	14.36
	8H	7.03	7.69	7.50	8.14	8.61	12.77	13.43	13.24	13.88	14.35
	12H	7.27	7.85	7.75	8.33	8.80	12.82	13.40	13.30	13.88	14.35
8H	4H	6.65	7.30	7.11	7.75	8.22	12.63	13.28	13.10	13.73	14.20
	6H	7.50	8.04	8.00	8.53	9.02	12.75	13.29	13.26	13.79	14.27
	8H	7.91	8.39	8.43	8.91	9.40	12.84	13.32	13.36	13.84	14.33
	12H	8.33	8.76	8.84	9.25	9.82	12.96	13.39	13.47	13.88	14.45
12H	4H	6.70	7.28	7.18	7.76	8.24	12.60	13.18	13.09	13.66	14.14
	6H	7.63	8.12	8.15	8.63	9.12	12.74	13.22	13.26	13.73	14.23
	8H	8.15	8.58	8.67	9.08	9.65	12.87	13.30	13.38	13.79	14.36