

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: P1060863

Luminaire Tested: S124RDR-H350D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060863
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-H350D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

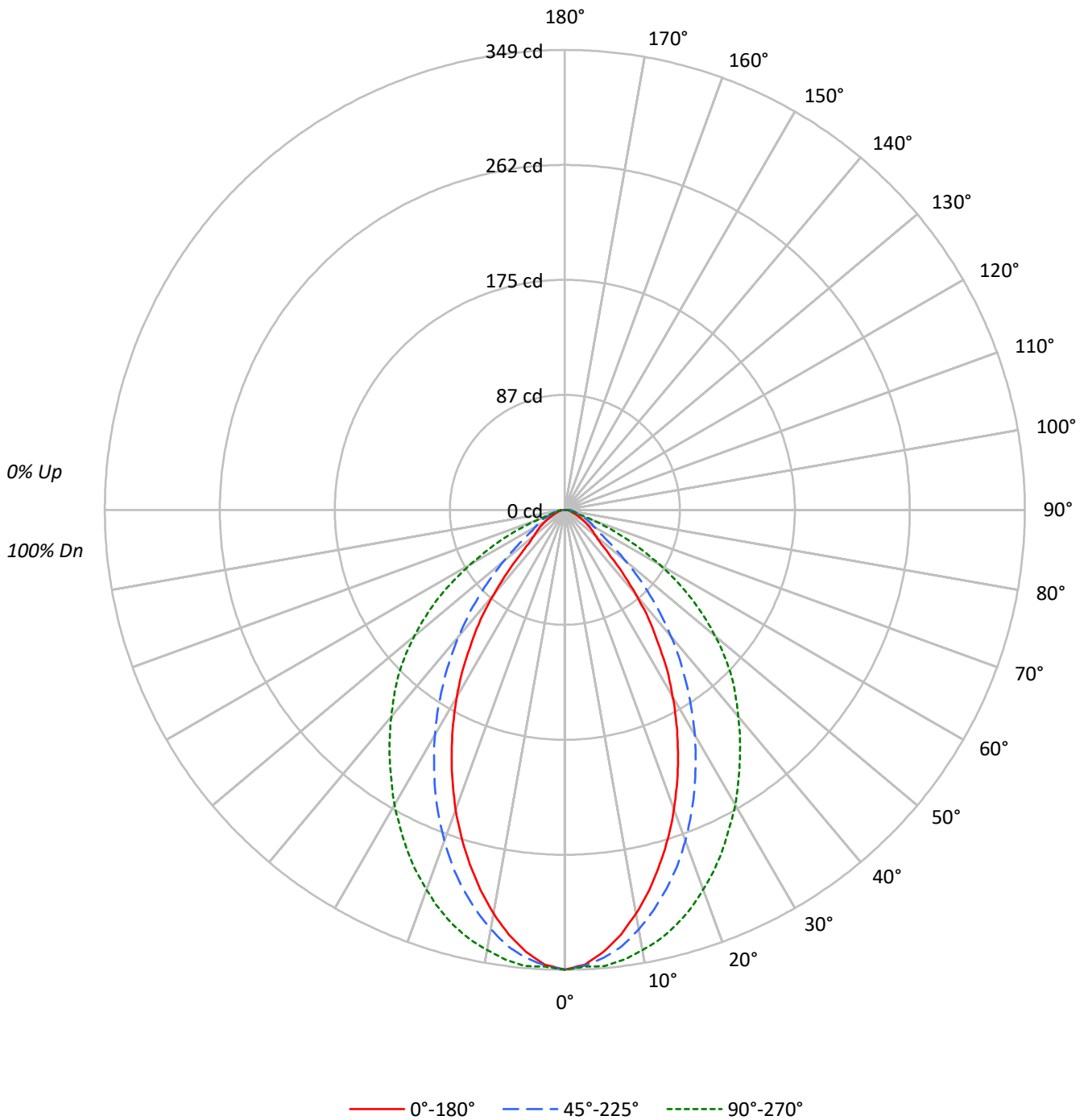
Lumens per Lamp: N/A
Luminaire Lumens: 493.8 lumens
Efficiency: N/A
Efficacy: 42.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				
1	111	108	104	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	76	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	66	75	70	66	73	68	65	63				
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3004	3004	3004
5°	2911	2948	3003
10°	2720	2826	2966
15°	2482	2655	2909
20°	2219	2450	2811
25°	1930	2215	2696
30°	1628	1962	2570
35°	1295	1688	2435
40°	942	1406	2301
45°	570	1111	2179
50°	407	804	1995
55°	345	545	1761
60°	282	443	1423
65°	222	397	1025
70°	186	335	539
75°	170	313	273
80°	174	307	273
85°	227	464	306

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2179 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.1	6.5
10°-20°	84.2	17.0
20°-30°	109.2	22.1
30°-40°	105.1	21.3
40°-50°	78.2	15.8
50°-60°	48.1	9.7
60°-70°	23.6	4.8
70°-80°	9.2	1.9
80°-90°	4.2	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°	225.5	45.7
0°-40°	330.6	66.9
0°-60°	456.8	92.5
0°-90°	493.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	493.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	349	349	349	349	349	
5°	337	342	341	344	347	31
15°	278	287	298	316	326	78
25°	203	214	233	262	284	93
35°	123	135	161	201	232	77
45°	47	58	91	141	179	39
55°	23	24	36	83	117	21
65°	11	12	20	31	50	11
75°	5	9	9	9	8	6
85°	2	4	5	5	3	2
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	348.9	348.9	348.9	348.9	348.9
2.5°	345.4	349.3	346.2	346.6	347.0
5°	336.8	341.9	341.1	344.2	347.4
7.5°	325.1	331.0	333.7	339.9	344.2
10°	311.1	317.7	323.2	333.3	339.2
12.5°	295.5	303.3	311.1	324.7	333.7
15°	278.4	287.3	297.8	315.8	326.3
17.5°	260.8	269.8	283.4	304.1	317.3
20°	242.1	251.8	267.4	290.4	306.8
22.5°	222.6	233.1	250.3	276.4	295.9
25°	203.1	214.0	233.1	262.4	283.8
27.5°	183.6	194.1	214.8	247.6	270.9
30°	163.7	174.7	197.3	231.6	258.5
32.5°	144.6	154.8	178.9	216.4	244.8
35°	123.2	134.9	160.6	200.8	231.6
37.5°	104.9	115.4	143.1	185.2	218.3
40°	83.8	95.5	125.1	170.0	204.7
42.5°	64.3	76.0	108.0	154.8	191.8
45°	46.8	58.1	91.2	140.7	178.9
47.5°	35.5	42.1	74.9	127.1	164.5
50°	30.4	32.4	60.0	112.3	148.9
52.5°	26.9	27.7	46.8	97.5	133.3
55°	23.0	23.8	36.3	82.6	117.3
57.5°	19.5	19.9	29.2	68.6	100.2
60°	16.4	16.8	25.7	55.0	82.6
62.5°	13.6	14.0	23.0	42.5	65.9
65°	10.9	11.7	19.5	31.2	50.3
67.5°	9.0	10.5	16.4	21.8	35.1
70°	7.4	10.1	13.3	15.2	21.4
72.5°	6.2	9.4	11.3	10.9	10.5
75°	5.1	9.0	9.4	8.6	8.2
77.5°	4.3	7.8	7.8	7.0	6.6
80°	3.5	6.2	6.2	6.2	5.5
82.5°	3.1	5.1	5.5	5.5	4.3
85°	2.3	4.3	4.7	4.7	3.1
87.5°	1.6	3.9	4.3	3.9	2.3
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	3.61	4.95	3.98	5.27	5.58	12.77	14.12	13.14	14.43	14.74
	3H	4.72	5.91	5.10	6.24	6.61	13.28	14.47	13.66	14.80	15.17
	4H	5.24	6.35	5.64	6.70	7.08	13.30	14.41	13.70	14.76	15.14
	6H	5.67	6.69	6.09	7.06	7.46	13.31	14.33	13.73	14.70	15.10
	8H	5.86	6.83	6.29	7.22	7.62	13.31	14.28	13.74	14.67	15.08
	12H	6.04	6.96	6.47	7.35	7.78	13.32	14.24	13.75	14.63	15.06
4H	2H	4.76	5.87	5.16	6.22	6.60	12.67	13.78	13.07	14.13	14.51
	3H	6.10	7.00	6.51	7.41	7.81	13.26	14.16	13.67	14.57	14.97
	4H	6.83	7.65	7.27	8.07	8.51	13.31	14.13	13.75	14.55	14.99
	6H	7.44	8.14	7.90	8.59	9.05	13.39	14.09	13.85	14.54	15.00
	8H	7.68	8.34	8.15	8.78	9.26	13.42	14.08	13.89	14.52	14.99
	12H	7.91	8.50	8.40	8.98	9.45	13.46	14.04	13.95	14.52	15.00
8H	4H	7.30	7.96	7.77	8.40	8.88	13.27	13.93	13.74	14.38	14.85
	6H	8.15	8.68	8.65	9.18	9.66	13.40	13.94	13.90	14.43	14.91
	8H	8.55	9.04	9.07	9.55	10.04	13.48	13.97	14.00	14.48	14.97
	12H	8.97	9.40	9.49	9.90	10.47	13.60	14.03	14.12	14.53	15.10
12H	4H	7.35	7.93	7.84	8.42	8.89	13.25	13.83	13.73	14.31	14.78
	6H	8.28	8.76	8.80	9.28	9.77	13.38	13.86	13.90	14.38	14.87
	8H	8.80	9.23	9.32	9.73	10.30	13.52	13.94	14.03	14.44	15.01