

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: P1060791

Luminaire Tested: S124RDR-H350D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060791
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-H350D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

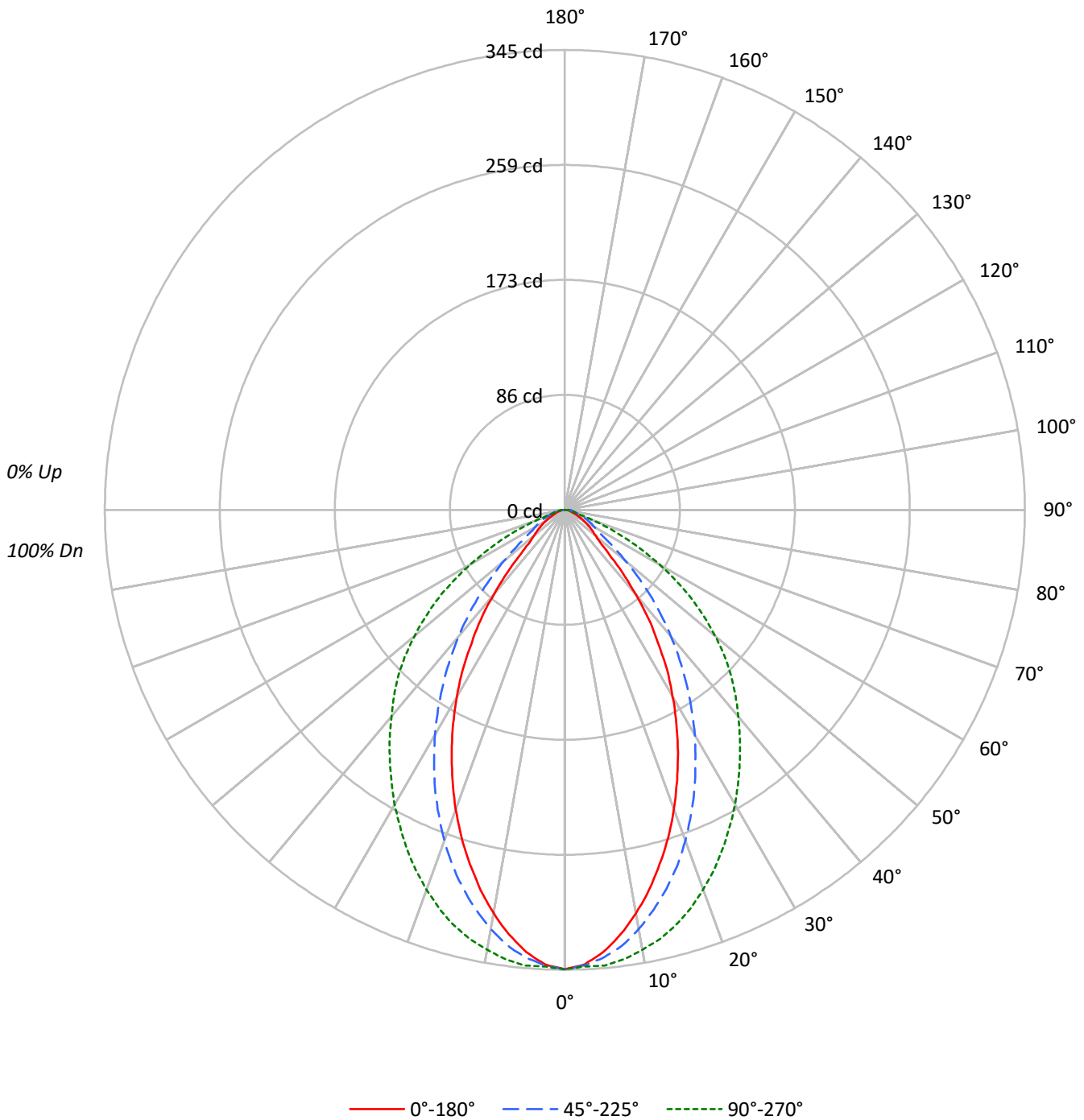
Lumens per Lamp: N/A
Luminaire Lumens: 487.9 lumens
Efficiency: N/A
Efficacy: 41.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	76	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°	2968	2968	2968
5°	2877	2913	2967
10°	2688	2792	2930
15°	2452	2624	2874
20°	2192	2421	2778
25°	1907	2188	2664
30°	1609	1938	2540
35°	1279	1668	2405
40°	931	1389	2273
45°	563	1097	2153
50°	402	794	1971
55°	341	537	1740
60°	279	437	1407
65°	220	393	1013
70°	184	330	534
75°	166	306	269
80°	174	307	268
85°	227	454	306

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2153 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.7	6.5
10°-20°	83.2	17.0
20°-30°	107.9	22.1
30°-40°	103.8	21.3
40°-50°	77.2	15.8
50°-60°	47.5	9.7
60°-70°	23.3	4.8
70°-80°	9.1	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°	222.8	45.7
0°-40°	326.6	66.9
0°-60°	451.3	92.5
0°-90°	487.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	487.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	345	345	345	345	345	
5°	333	338	337	340	343	31
15°	275	284	294	312	322	77
25°	201	212	230	259	280	92
35°	122	133	159	198	229	76
45°	46	57	90	139	177	38
55°	23	24	36	82	116	20
65°	11	12	19	31	50	11
75°	5	9	9	8	8	5
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°	344.7	344.7	344.7	344.7	344.7
2.5°	341.3	345.1	342.0	342.4	342.8
5°	332.8	337.8	337.0	340.1	343.2
7.5°	321.2	327.0	329.7	335.9	340.1
10°	307.4	313.9	319.3	329.3	335.1
12.5°	292.0	299.7	307.4	320.8	329.7
15°	275.0	283.9	294.3	312.0	322.4
17.5°	257.7	266.5	280.0	300.4	313.5
20°	239.2	248.8	264.2	286.9	303.1
22.5°	219.9	230.3	247.3	273.1	292.3
25°	200.7	211.5	230.3	259.2	280.4
27.5°	181.4	191.8	212.2	244.6	267.7
30°	161.8	172.6	194.9	228.8	255.4
32.5°	142.9	152.9	176.8	213.8	241.9
35°	121.7	133.3	158.7	198.4	228.8
37.5°	103.6	114.0	141.4	183.0	215.7
40°	82.8	94.4	123.6	167.9	202.2
42.5°	63.6	75.1	106.7	152.9	189.5
45°	46.2	57.4	90.1	139.0	176.8
47.5°	35.1	41.6	74.0	125.6	162.5
50°	30.0	32.0	59.3	110.9	147.1
52.5°	26.6	27.3	46.2	96.3	131.7
55°	22.7	23.5	35.8	81.7	115.9
57.5°	19.3	19.6	28.9	67.8	99.0
60°	16.2	16.6	25.4	54.3	81.7
62.5°	13.5	13.9	22.7	42.0	65.1
65°	10.8	11.6	19.3	30.8	49.7
67.5°	8.9	10.4	16.2	21.6	34.7
70°	7.3	10.0	13.1	15.0	21.2
72.5°	6.2	9.2	11.2	10.8	10.4
75°	5.0	8.9	9.2	8.5	8.1
77.5°	4.2	7.7	7.7	6.9	6.5
80°	3.5	6.2	6.2	6.2	5.4
82.5°	3.1	5.0	5.4	5.4	4.2
85°	2.3	4.2	4.6	4.6	3.1
87.5°	1.5	3.9	4.2	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	3.56	4.90	3.92	5.21	5.53	12.73	14.08	13.10	14.39	14.70
	3H	4.67	5.86	5.05	6.19	6.56	13.24	14.43	13.62	14.76	15.13
	4H	5.19	6.30	5.59	6.65	7.03	13.26	14.37	13.66	14.72	15.11
	6H	5.62	6.65	6.04	7.02	7.41	13.27	14.29	13.69	14.66	15.06
	8H	5.82	6.78	6.25	7.18	7.58	13.27	14.24	13.70	14.63	15.04
	12H	6.00	6.92	6.43	7.31	7.74	13.28	14.20	13.71	14.58	15.02
4H	2H	4.71	5.82	5.11	6.17	6.55	12.63	13.74	13.03	14.09	14.47
	3H	6.05	6.96	6.46	7.36	7.76	13.22	14.13	13.63	14.53	14.93
	4H	6.79	7.60	7.22	8.02	8.46	13.28	14.09	13.71	14.51	14.95
	6H	7.40	8.10	7.86	8.55	9.01	13.35	14.05	13.81	14.50	14.96
	8H	7.64	8.30	8.11	8.75	9.22	13.38	14.04	13.85	14.48	14.95
	12H	7.88	8.46	8.36	8.94	9.41	13.42	14.00	13.91	14.48	14.96
8H	4H	7.25	7.91	7.72	8.36	8.83	13.23	13.89	13.70	14.34	14.81
	6H	8.11	8.64	8.61	9.14	9.62	13.36	13.90	13.86	14.39	14.87
	8H	8.51	9.00	9.03	9.51	10.00	13.44	13.93	13.96	14.44	14.93
	12H	8.93	9.36	9.45	9.85	10.43	13.56	13.99	14.08	14.49	15.06
12H	4H	7.31	7.89	7.79	8.37	8.85	13.21	13.79	13.69	14.27	14.74
	6H	8.24	8.72	8.76	9.24	9.73	13.34	13.83	13.86	14.34	14.83
	8H	8.76	9.19	9.28	9.68	10.26	13.48	13.90	13.99	14.40	14.97