

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: P1059486

Luminaire Tested: S123RDR-H1000D950-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059486
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D950-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 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

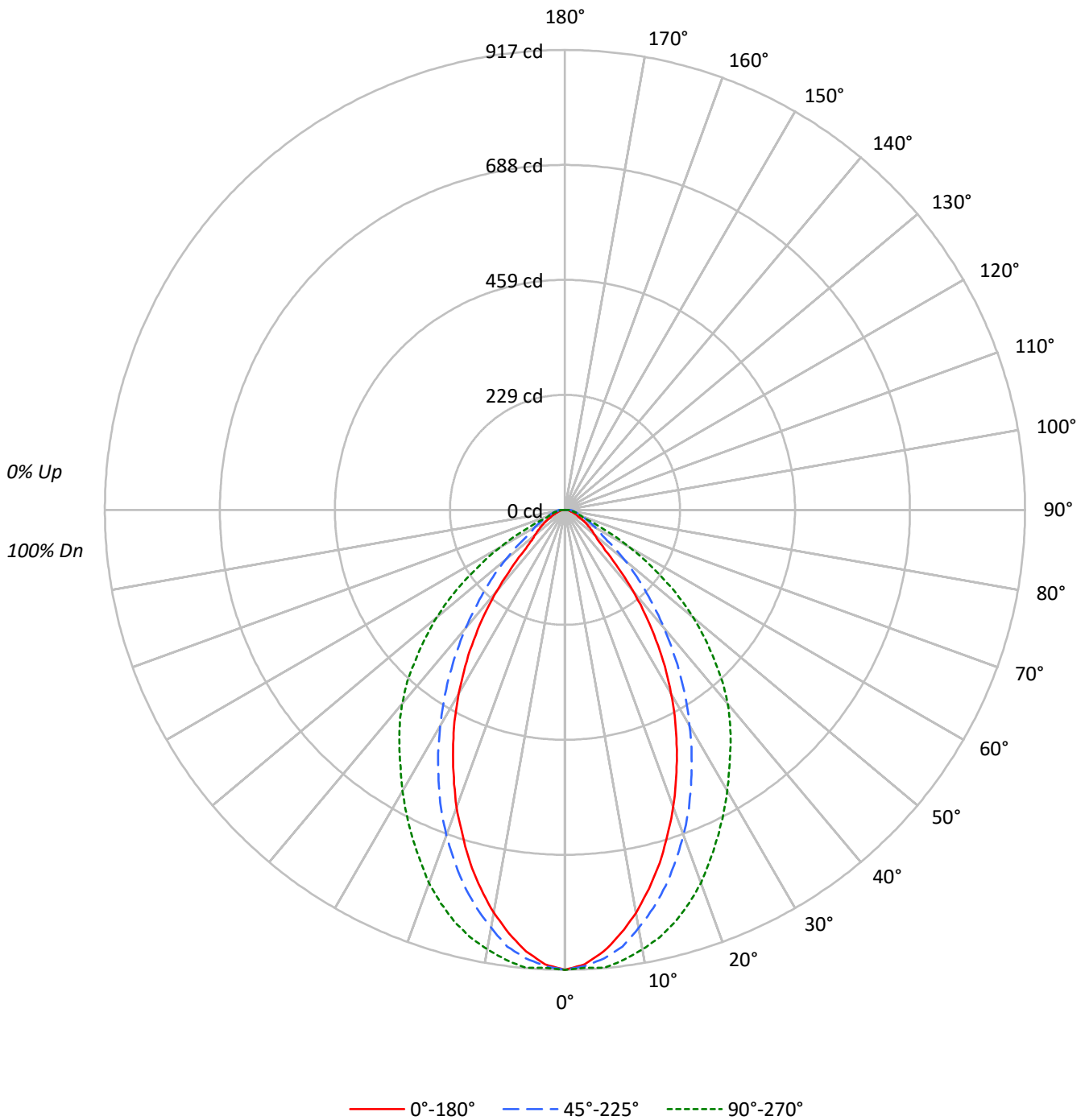
Lumens per Lamp: N/A
Luminaire Lumens: 1231.2 lumens
Efficiency: N/A
Efficacy: 39.5 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89			89	
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79			79	
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71			71	
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64			64	
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58			58	
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52			52	
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48			48	
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44			44	
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40			40	
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37			37	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10770	10770	10770
5°	10421	10583	10797
10°	9727	10093	10610
15°	8865	9432	10333
20°	7887	8629	9896
25°	6834	7721	9330
30°	5731	6736	8775
35°	4540	5733	8248
40°	3213	4715	7736
45°	1891	3728	6963
50°	1416	2832	6098
55°	1189	1912	4899
60°	963	1632	3478
65°	759	1392	1837
70°	666	1212	1133
75°	622	1139	1084
80°	615	1231	1082
85°	768	1846	1388

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6963 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.4	6.9
10°-20°	219.4	17.8
20°-30°	279.4	22.7
30°-40°	262.8	21.3
40°-50°	189.3	15.4
50°-60°	109.3	8.9
60°-70°	50.0	4.1
70°-80°	24.9	2.0
80°-90°	11.8	1.0
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°	583.2	47.4
0°-40°	845.9	68.7
0°-60°	1144.5	93.0
0°-90°	1231.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1231.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	917	917	917	917	917	
5°	884	899	898	907	916	82
15°	729	755	776	819	850	203
25°	528	555	596	662	720	241
35°	317	344	400	492	575	196
45°	114	142	224	337	419	96
55°	58	60	93	178	239	52
65°	27	39	50	56	66	28
75°	14	26	25	24	24	15
85°	6	12	14	12	10	6
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	917.2	917.2	917.2	917.2	917.2
2.5°	906.9	918.3	910.4	911.5	913.8
5°	884.1	899.0	897.8	906.9	916.0
7.5°	852.2	869.3	878.4	892.1	904.7
10°	815.8	835.2	846.5	871.6	889.8
12.5°	773.6	798.7	813.5	846.5	872.8
15°	729.2	755.4	775.9	819.2	850.0
17.5°	679.1	707.5	733.7	785.0	822.6
20°	631.2	658.6	690.5	746.3	791.9
22.5°	578.8	608.4	644.9	704.1	755.4
25°	527.5	554.9	595.9	662.0	720.1
27.5°	476.3	503.6	546.9	619.8	683.6
30°	422.7	451.2	496.8	577.7	647.2
32.5°	370.3	397.6	448.9	536.6	609.6
35°	316.7	344.1	399.9	492.2	575.4
37.5°	264.3	292.8	352.1	455.7	541.2
40°	209.6	240.4	307.6	418.1	504.7
42.5°	158.4	191.4	263.2	379.4	464.9
45°	113.9	142.4	224.5	337.3	419.3
47.5°	88.9	103.7	189.1	294.0	377.1
50°	77.5	79.8	155.0	254.1	333.8
52.5°	67.2	69.5	121.9	216.5	288.3
55°	58.1	60.4	93.4	177.7	239.3
57.5°	49.0	52.4	77.5	141.3	192.6
60°	41.0	45.6	69.5	108.2	148.1
62.5°	33.0	41.0	59.2	79.8	106.0
65°	27.3	38.7	50.1	55.8	66.1
67.5°	22.8	35.3	42.2	39.9	38.7
70°	19.4	31.9	35.3	31.9	33.0
72.5°	16.0	29.6	29.6	27.3	27.3
75°	13.7	26.2	25.1	23.9	23.9
77.5°	11.4	22.8	21.6	20.5	19.4
80°	9.1	18.2	18.2	17.1	16.0
82.5°	8.0	14.8	14.8	14.8	12.5
85°	5.7	12.5	13.7	12.5	10.3
87.5°	4.6	11.4	11.4	10.3	6.8
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	8.23	9.55	8.59	9.86	10.17	15.59	16.91	15.96	17.22	17.54
	3H	9.62	10.79	10.00	11.12	11.48	15.82	16.99	16.20	17.32	17.69
	4H	10.17	11.26	10.57	11.61	12.00	15.94	17.03	16.34	17.38	17.76
	6H	10.60	11.61	11.02	11.98	12.37	16.05	17.05	16.47	17.42	17.82
	8H	10.78	11.73	11.21	12.12	12.53	16.10	17.05	16.53	17.44	17.85
	12H	10.94	11.85	11.37	12.23	12.66	16.16	17.07	16.59	17.45	17.88
4H	2H	9.33	10.42	9.73	10.77	11.15	15.55	16.64	15.95	16.99	17.37
	3H	10.99	11.88	11.40	12.29	12.69	15.91	16.80	16.32	17.21	17.61
	4H	11.80	12.60	12.24	13.02	13.46	16.11	16.91	16.54	17.32	17.77
	6H	12.44	13.13	12.90	13.57	14.04	16.33	17.03	16.80	17.47	17.94
	8H	12.67	13.32	13.14	13.76	14.23	16.44	17.08	16.91	17.53	18.00
	12H	12.88	13.46	13.37	13.94	14.41	16.57	17.14	17.05	17.62	18.10
8H	4H	12.24	12.89	12.71	13.34	13.81	16.14	16.79	16.61	17.24	17.71
	6H	13.15	13.68	13.65	14.18	14.66	16.47	17.00	16.97	17.50	17.98
	8H	13.57	14.05	14.09	14.56	15.05	16.66	17.14	17.18	17.65	18.15
	12H	13.99	14.41	14.50	14.90	15.48	16.91	17.33	17.43	17.83	18.40
12H	4H	12.30	12.87	12.79	13.35	13.83	16.13	16.70	16.62	17.19	17.66
	6H	13.29	13.76	13.81	14.28	14.77	16.49	16.97	17.01	17.48	17.97
	8H	13.82	14.25	14.34	14.74	15.31	16.74	17.17	17.26	17.66	18.23