

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: P1059481

Luminaire Tested: S123RDR-H1000D950-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059481
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D950-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

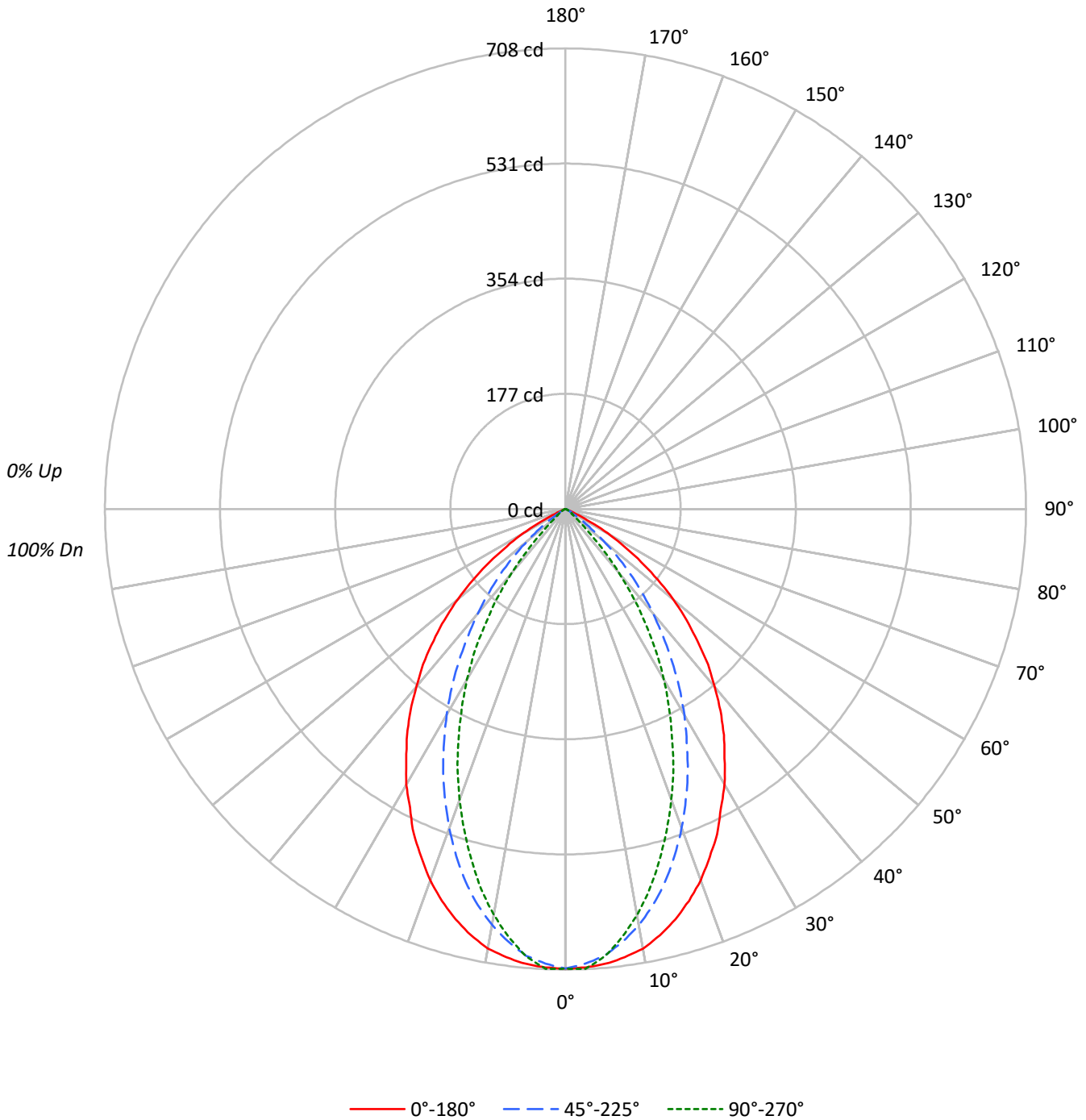
Lumens per Lamp: N/A
Luminaire Lumens: 806.3 lumens
Efficiency: N/A
Efficacy: 25.8 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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				
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92				
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84				
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76				
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69				
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63				
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58				
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53				
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49				
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46				
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8297	8297	8297
5°	8275	8127	8140
10°	8181	7747	7556
15°	7940	7206	6792
20°	7593	6525	5943
25°	7149	5764	5027
30°	6634	4952	4104
35°	6084	4094	3050
40°	5459	3210	1953
45°	4761	2343	812
50°	3950	1392	312
55°	2911	581	233
60°	1764	214	134
65°	475	128	64
70°	0	38	38
75°	0	0	50
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4761 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.0	8.1
10°-20°	167.9	20.8
20°-30°	209.2	25.9
30°-40°	187.1	23.2
40°-50°	118.1	14.6
50°-60°	49.4	6.1
60°-70°	9.3	1.2
70°-80°	0.3	0.0
80°-90°	0.0	0.0
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°	442.1	54.8
0°-40°	629.2	78.0
0°-60°	796.7	98.8
0°-90°	806.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	806.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	707	707	707	707	707	
5°	702	701	690	692	691	66
15°	653	637	593	568	559	183
25°	552	508	445	406	388	253
35°	424	363	286	234	213	264
45°	287	223	141	75	49	221
55°	142	98	28	11	11	127
65°	17	12	5	2	2	24
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	706.6	706.6	706.6	706.6	706.6
2.5°	705.4	706.6	699.7	706.6	707.7
5°	702.0	700.9	689.5	691.8	690.6
7.5°	695.2	691.8	671.3	666.7	664.5
10°	686.1	677.0	649.7	638.3	633.7
12.5°	671.3	658.8	623.5	605.3	598.5
15°	653.1	637.2	592.8	567.8	558.7
17.5°	631.5	608.7	558.7	531.3	517.7
20°	607.6	575.7	522.2	489.3	475.6
22.5°	579.1	543.9	483.6	448.3	433.5
25°	551.8	507.5	444.9	406.2	388.0
27.5°	517.7	471.0	403.9	364.1	344.8
30°	489.3	435.8	365.2	320.9	302.7
32.5°	455.1	399.4	325.4	276.5	259.4
35°	424.4	363.0	285.6	234.4	212.8
37.5°	391.4	327.7	245.8	192.3	171.8
40°	356.1	292.4	209.4	150.2	127.4
42.5°	324.3	257.1	172.9	111.5	88.7
45°	286.7	223.0	141.1	75.1	48.9
47.5°	252.6	191.1	107.0	42.1	26.2
50°	216.2	158.2	76.2	21.6	17.1
52.5°	178.6	126.3	50.1	14.8	13.7
55°	142.2	97.9	28.4	11.4	11.4
57.5°	107.0	70.5	14.8	9.1	8.0
60°	75.1	46.6	9.1	6.8	5.7
62.5°	43.2	27.3	6.8	4.6	4.6
65°	17.1	12.5	4.6	2.3	2.3
67.5°	1.1	3.4	2.3	1.1	1.1
70°	0.0	0.0	1.1	1.1	1.1
72.5°	0.0	0.0	1.1	1.1	1.1
75°	0.0	0.0	0.0	0.0	1.1
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	12.54	13.72	12.90	14.03	14.34	0.00	0.00	0.00	0.00	0.00
	3H	12.38	13.41	12.76	13.74	14.11	0.00	0.00	0.00	0.00	0.00
	4H	12.29	13.25	12.70	13.60	13.99	0.00	0.00	0.00	0.00	0.00
	6H	12.20	13.07	12.62	13.45	13.84	0.00	0.00	0.00	0.00	0.00
	8H	12.15	12.97	12.58	13.36	13.77	0.00	0.00	0.00	0.00	0.00
	12H	12.10	12.89	12.53	13.27	13.70	0.00	0.00	0.00	0.00	0.00
4H	2H	12.30	13.25	12.70	13.60	13.99	0.00	0.00	0.00	0.00	0.00
	3H	12.13	12.90	12.55	13.31	13.71	0.00	0.00	0.00	0.00	0.00
	4H	12.03	12.71	12.47	13.13	13.58	0.00	0.00	0.00	0.00	0.00
	6H	11.93	12.52	12.40	12.97	13.44	0.00	0.00	0.00	0.00	0.00
	8H	11.87	12.41	12.34	12.86	13.33	0.00	0.00	0.00	0.00	0.00
	12H	11.81	12.29	12.30	12.77	13.25	0.00	0.00	0.00	0.00	0.00
8H	4H	11.87	12.41	12.34	12.86	13.33	0.00	0.00	0.00	0.00	0.00
	6H	11.75	12.19	12.26	12.69	13.18	0.00	0.00	0.00	0.00	0.00
	8H	11.68	12.08	12.21	12.59	13.09	0.00	0.00	0.00	0.00	0.00
	12H	11.62	11.97	12.14	12.47	13.05	0.00	0.00	0.00	0.00	0.00
12H	4H	11.81	12.29	12.30	12.77	13.25	0.00	0.00	0.00	0.00	0.00
	6H	11.68	12.08	12.21	12.59	13.09	0.00	0.00	0.00	0.00	0.00
	8H	11.62	11.97	12.14	12.47	13.05	0.00	0.00	0.00	0.00	0.00