

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: P1058593

Luminaire Tested: S122RDR-H865D950-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058593
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D950-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK 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

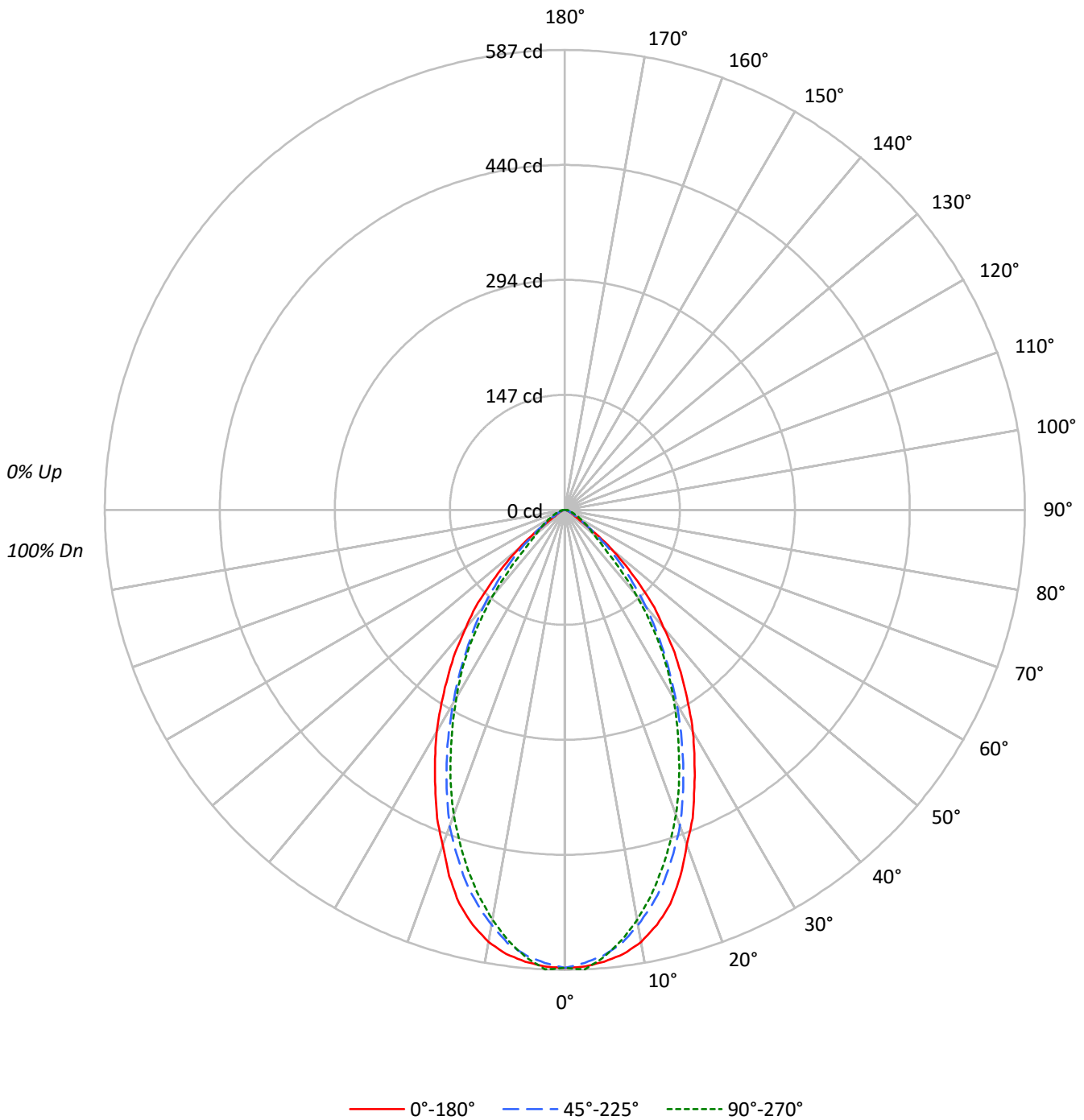
Lumens per Lamp: N/A
Luminaire Lumens: 628.8 lumens
Efficiency: N/A
Efficacy: 20.2 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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	99	100	98	96	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	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10789	10789	10789
5°	10721	10571	10614
10°	10497	10081	9949
15°	9943	9364	9097
20°	8937	8434	8135
25°	7961	7271	7010
30°	6963	6068	5894
35°	5861	4915	4758
40°	4724	3881	3430
45°	3533	2803	2041
50°	2210	1809	1341
55°	750	975	1087
60°	432	602	860
65°	306	406	664
70°	254	313	502
75°	164	250	414
80°	128	244	372
85°	0	0	254

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3533 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	8.6
10°-20°	138.0	21.9
20°-30°	166.1	26.4
30°-40°	141.9	22.6
40°-50°	83.2	13.2
50°-60°	30.1	4.8
60°-70°	10.7	1.7
70°-80°	4.3	0.7
80°-90°	0.8	0.1
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°	358.0	56.9
0°-40°	499.9	79.5
0°-60°	613.1	97.5
0°-90°	628.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	628.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	579	580	571	573	573	55
15°	520	512	490	481	476	145
25°	391	375	357	351	344	179
35°	260	240	218	216	211	162
45°	135	121	107	90	78	104
55°	23	33	30	32	34	29
65°	7	8	9	13	15	7
75°	2	4	4	5	6	3
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	584.7	584.7	584.7	584.7	584.7
2.5°	583.5	584.7	578.8	584.7	587.0
5°	578.8	580.0	570.7	573.0	573.0
7.5°	571.8	570.7	557.8	555.5	554.3
10°	560.2	556.7	538.0	534.5	531.0
12.5°	542.7	535.7	515.8	510.0	505.3
15°	520.5	512.3	490.2	480.8	476.2
17.5°	490.2	480.8	459.8	450.5	445.8
20°	455.1	445.8	429.5	419.0	414.3
22.5°	426.0	410.8	393.3	386.3	380.5
25°	391.0	374.6	357.1	351.3	344.3
27.5°	358.3	338.4	320.9	316.3	310.4
30°	326.8	305.8	284.8	284.8	276.6
32.5°	292.9	273.1	250.9	249.7	245.1
35°	260.2	240.4	218.2	215.9	211.2
37.5°	229.9	210.1	189.1	182.1	176.2
40°	196.1	178.6	161.1	149.4	142.4
42.5°	169.2	149.4	131.9	117.9	108.5
45°	135.4	121.4	107.4	89.9	78.2
47.5°	105.0	95.7	84.0	64.2	58.4
50°	77.0	72.4	63.0	47.8	46.7
52.5°	49.0	51.3	45.5	37.3	40.8
55°	23.3	32.7	30.3	31.5	33.8
57.5°	15.2	16.3	22.2	25.7	28.0
60°	11.7	11.7	16.3	21.0	23.3
62.5°	9.3	9.3	12.8	17.5	18.7
65°	7.0	8.2	9.3	12.8	15.2
67.5°	5.8	5.8	7.0	10.5	11.7
70°	4.7	4.7	5.8	8.2	9.3
72.5°	3.5	3.5	4.7	7.0	7.0
75°	2.3	3.5	3.5	4.7	5.8
77.5°	2.3	2.3	2.3	3.5	4.7
80°	1.2	1.2	2.3	2.3	3.5
82.5°	1.2	1.2	1.2	1.2	2.3
85°	0.0	0.0	0.0	1.2	1.2
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	4.14	5.30	4.50	5.61	5.93	7.55	8.71	7.91	9.02	9.34
	3H	4.66	5.68	5.04	6.01	6.38	8.28	9.30	8.66	9.63	10.00
	4H	4.79	5.74	5.20	6.09	6.48	8.49	9.44	8.90	9.79	10.18
	6H	4.86	5.73	5.28	6.10	6.50	8.64	9.51	9.06	9.88	10.28
	8H	4.87	5.69	5.30	6.08	6.49	8.67	9.49	9.11	9.88	10.29
	12H	4.84	5.62	5.27	6.00	6.43	8.68	9.46	9.11	9.84	10.27
4H	2H	4.44	5.39	4.85	5.74	6.13	7.51	8.46	7.92	8.81	9.20
	3H	5.11	5.87	5.52	6.28	6.69	8.39	9.16	8.80	9.56	9.97
	4H	5.35	6.03	5.78	6.45	6.90	8.67	9.35	9.11	9.78	10.22
	6H	5.46	6.05	5.93	6.50	6.97	8.90	9.48	9.36	9.93	10.40
	8H	5.48	6.03	5.96	6.48	6.95	8.94	9.49	9.41	9.93	10.41
	12H	5.45	5.93	5.94	6.41	6.89	8.96	9.44	9.45	9.92	10.40
8H	4H	5.45	6.00	5.92	6.45	6.92	8.60	9.15	9.07	9.60	10.07
	6H	5.62	6.06	6.12	6.56	7.04	8.86	9.30	9.37	9.80	10.28
	8H	5.67	6.07	6.20	6.58	7.08	8.92	9.32	9.45	9.84	10.33
	12H	5.65	6.00	6.17	6.49	7.07	8.98	9.33	9.50	9.83	10.40
12H	4H	5.44	5.91	5.93	6.40	6.88	8.55	9.03	9.04	9.52	9.99
	6H	5.62	6.01	6.14	6.53	7.03	8.81	9.21	9.34	9.72	10.22
	8H	5.70	6.04	6.22	6.54	7.12	8.89	9.24	9.41	9.74	10.32