

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059160

Luminaire Tested: S123RDRP-S1165D950-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059160
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D950-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

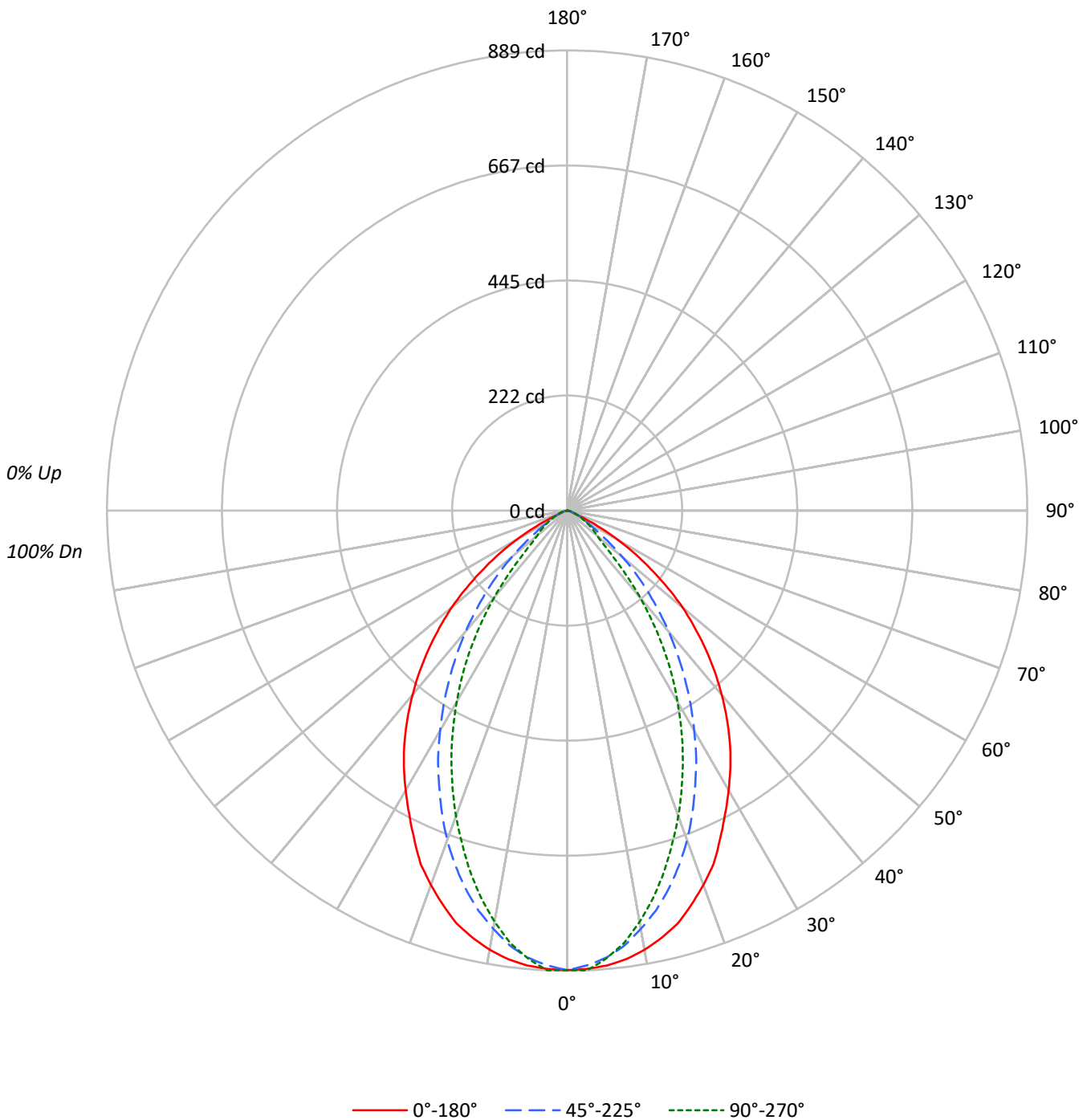
Lumens per Lamp: N/A
Luminaire Lumens: 1146.0 lumens
Efficiency: N/A
Efficacy: 27.4 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (A_{in}): 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	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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82					82			
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73					73			
4	92	83	76	71	90	82	75	71	79	74	70	77	73	69	75	71	68	66					66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60					60			
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55					55			
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50					50			
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46					46			
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42					42			
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10424	10424	10424
5°	10399	10221	10237
10°	10273	9782	9618
15°	10040	9205	8787
20°	9616	8466	7848
25°	9062	7585	6854
30°	8459	6652	5776
35°	7860	5674	4649
40°	7120	4677	3371
45°	6276	3628	2031
50°	5321	2536	1381
55°	4051	1519	1153
60°	2647	968	904
65°	1109	725	725
70°	378	518	566
75°	313	372	436
80°	183	277	372
85°	189	189	364

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6276 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.0	7.2
10°-20°	214.6	18.7
20°-30°	275.1	24.0
30°-40°	258.2	22.5
40°-50°	180.1	15.7
50°-60°	93.1	8.1
60°-70°	31.8	2.8
70°-80°	9.1	0.8
80°-90°	1.9	0.2
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°	571.7	49.9
0°-40°	829.9	72.4
0°-60°	1103.1	96.3
0°-90°	1146.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1146.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	888	888	888	888	888	
5°	882	881	867	871	868	84
15°	826	805	757	732	723	231
25°	699	656	585	546	529	322
35°	548	481	396	345	324	341
45°	378	309	218	151	122	291
55°	198	148	74	58	56	178
65°	40	34	26	25	26	47
75°	7	7	8	10	10	7
85°	1	1	1	1	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	887.7	887.7	887.7	887.7	887.7
2.5°	886.3	887.7	879.5	887.7	889.1
5°	882.2	880.8	867.1	871.2	868.5
7.5°	874.0	869.8	847.8	842.4	842.4
10°	861.6	853.3	820.4	810.7	806.6
12.5°	845.1	834.1	791.5	773.6	766.8
15°	825.9	805.2	757.2	732.4	722.8
17.5°	798.4	770.9	718.7	689.8	674.7
20°	769.5	735.2	677.5	643.1	628.0
22.5°	739.3	698.1	632.1	595.0	578.5
25°	699.4	655.5	585.4	545.5	529.0
27.5°	661.0	614.2	540.0	494.7	478.2
30°	623.9	568.9	490.6	446.6	426.0
32.5°	586.8	524.9	443.8	395.8	376.5
35°	548.3	481.0	395.8	344.9	324.3
37.5°	507.1	438.4	350.4	295.4	270.7
40°	464.5	393.0	305.1	243.2	219.9
42.5°	421.9	351.8	259.7	196.5	169.0
45°	377.9	309.2	218.5	151.2	122.3
47.5°	333.9	266.6	178.6	109.9	92.1
50°	291.3	226.7	138.8	81.1	75.6
52.5°	244.6	188.3	104.4	67.3	66.0
55°	197.9	148.4	74.2	57.7	56.3
57.5°	156.7	115.4	53.6	48.1	46.7
60°	112.7	82.4	41.2	39.9	38.5
62.5°	74.2	56.3	33.0	31.6	31.6
65°	39.9	34.4	26.1	24.7	26.1
67.5°	16.5	19.2	19.2	20.6	20.6
70°	11.0	12.4	15.1	16.5	16.5
72.5°	8.2	9.6	11.0	12.4	12.4
75°	6.9	6.9	8.2	9.6	9.6
77.5°	4.1	5.5	5.5	6.9	8.2
80°	2.7	4.1	4.1	5.5	5.5
82.5°	1.4	2.7	2.7	4.1	4.1
85°	1.4	1.4	1.4	1.4	2.7
87.5°	0.0	0.0	0.0	0.0	1.4
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	14.48	15.74	14.84	16.05	16.36	7.98	9.24	8.35	9.55	9.87
	3H	14.43	15.54	14.81	15.87	16.23	8.76	9.87	9.14	10.20	10.56
	4H	14.38	15.41	14.78	15.76	16.14	8.96	9.99	9.36	10.34	10.73
	6H	14.31	15.25	14.72	15.62	16.02	9.10	10.05	9.52	10.42	10.81
	8H	14.26	15.15	14.69	15.55	15.95	9.14	10.03	9.57	10.42	10.83
	12H	14.22	15.07	14.65	15.45	15.89	9.15	10.01	9.59	10.39	10.82
4H	2H	14.32	15.35	14.73	15.70	16.09	8.24	9.27	8.64	9.62	10.01
	3H	14.31	15.14	14.72	15.55	15.95	9.15	9.98	9.56	10.39	10.79
	4H	14.26	15.00	14.69	15.42	15.86	9.42	10.16	9.86	10.58	11.03
	6H	14.20	14.84	14.66	15.28	15.75	9.63	10.27	10.10	10.72	11.19
	8H	14.15	14.74	14.62	15.19	15.66	9.70	10.29	10.17	10.74	11.21
	12H	14.10	14.62	14.59	15.11	15.58	9.73	10.26	10.22	10.74	11.22
8H	4H	14.14	14.74	14.61	15.19	15.66	9.40	10.00	9.87	10.45	10.92
	6H	14.08	14.56	14.58	15.06	15.54	9.67	10.15	10.18	10.65	11.14
	8H	14.03	14.46	14.55	14.98	15.47	9.78	10.21	10.30	10.73	11.22
	12H	13.99	14.38	14.51	14.87	15.45	9.85	10.23	10.37	10.73	11.30
12H	4H	14.10	14.62	14.58	15.10	15.58	9.36	9.89	9.85	10.37	10.85
	6H	14.02	14.46	14.55	14.97	15.47	9.63	10.07	10.16	10.58	11.08
	8H	13.99	14.38	14.51	14.87	15.45	9.77	10.15	10.29	10.65	11.22