

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: P1059160

Luminaire Tested: S123RDR-S1165D950-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
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: S123RDR-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

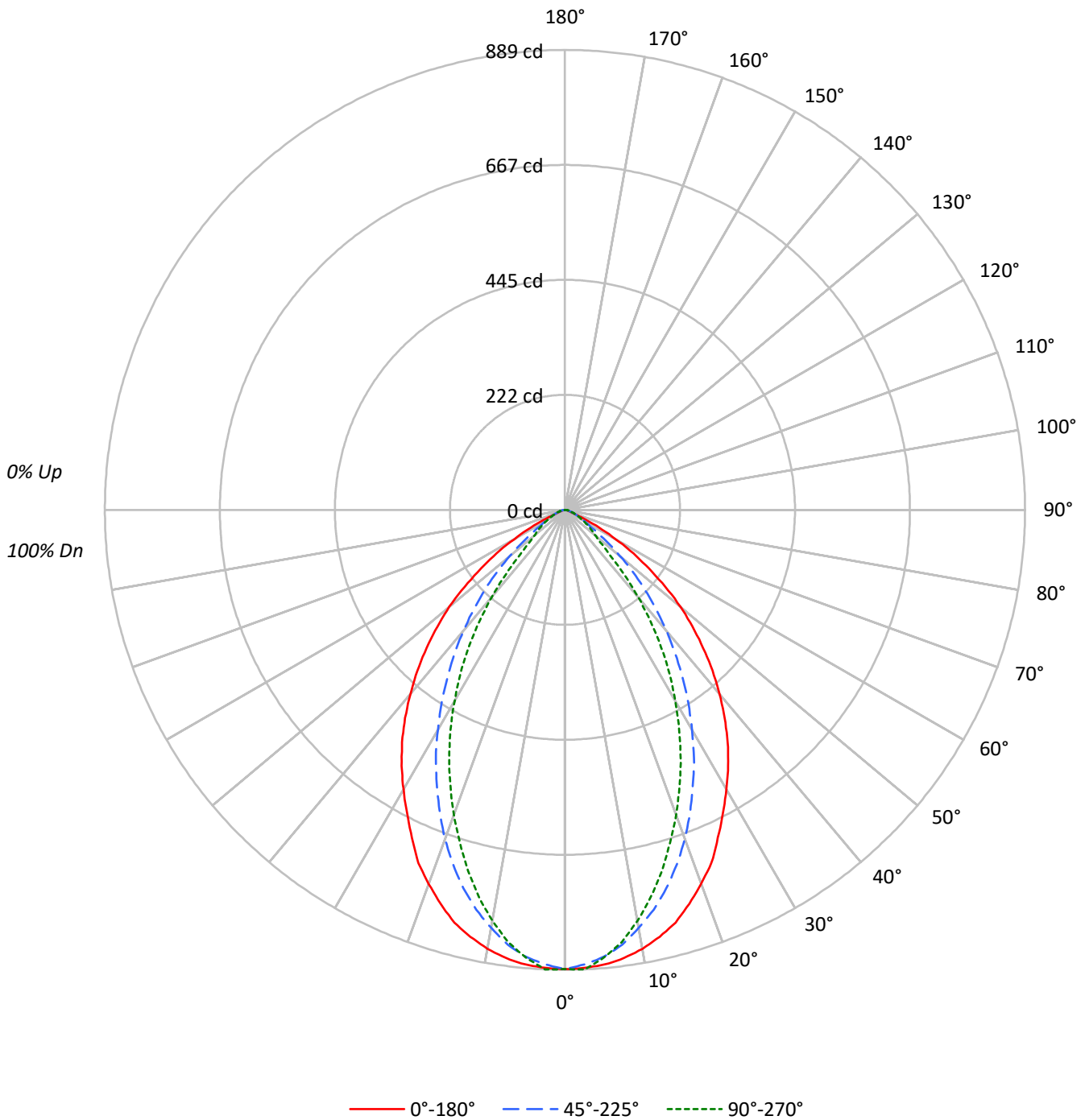
Lumens per Lamp: N/A
Luminaire Lumens: 1146.0 lumens
Efficiency: N/A
Efficacy: 27.4 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

(END OF REPORT)