

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: P1059545

Luminaire Tested: S123RDR-H1165D935-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059545
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1165D935-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

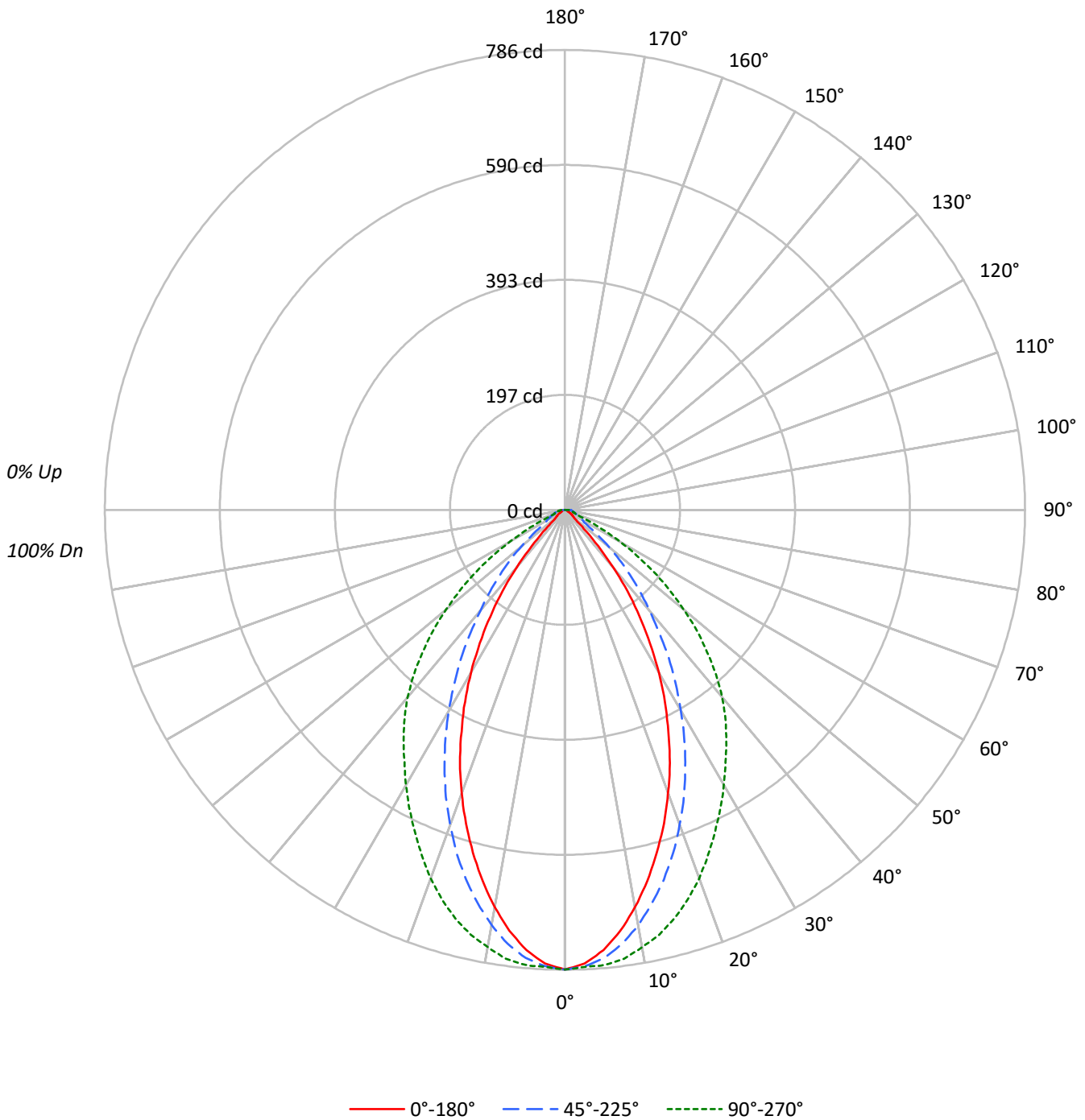
Lumens per Lamp: N/A
Luminaire Lumens: 943.6 lumens
Efficiency: N/A
Efficacy: 25.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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									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	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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																												
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81																												
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73																												
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66																												
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60																												
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55																												
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50																												
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46																												
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43																												
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9225	9225	9225
5°	8905	9062	9204
10°	8221	8593	9051
15°	7374	7943	8790
20°	6439	7160	8376
25°	5416	6303	7859
30°	4348	5375	7361
35°	3185	4425	6888
40°	1970	3443	6407
45°	757	2594	5704
50°	373	1777	4828
55°	295	983	3787
60°	197	817	2539
65°	167	734	1134
70°	165	659	659
75°	218	708	653
80°	325	893	730
85°	485	1455	970

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5704 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.0	7.6
10°-20°	184.4	19.5
20°-30°	228.9	24.3
30°-40°	205.0	21.7
40°-50°	134.8	14.3
50°-60°	67.5	7.2
60°-70°	26.6	2.8
70°-80°	14.9	1.6
80°-90°	9.4	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°	485.3	51.4
0°-40°	690.3	73.2
0°-60°	892.6	94.6
0°-90°	943.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	943.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	756	768	769	774	781	70
15°	607	626	653	698	723	169
25°	418	444	486	555	607	191
35°	222	252	309	404	480	138
45°	46	76	156	263	344	43
55°	14	17	48	130	185	13
65°	6	17	26	34	41	6
75°	5	16	16	14	14	5
85°	4	11	11	11	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	785.6	785.6	785.6	785.6	785.6
2.5°	776.0	786.8	780.8	780.8	782.0
5°	755.5	767.6	768.8	773.6	780.8
7.5°	725.5	741.1	748.3	762.8	773.6
10°	689.5	706.3	720.7	745.9	759.1
12.5°	649.8	666.7	688.3	723.1	743.5
15°	606.6	625.8	653.4	697.9	723.1
17.5°	562.2	581.4	615.0	665.5	697.9
20°	515.3	536.9	573.0	630.6	670.3
22.5°	468.5	492.5	530.9	593.4	639.0
25°	418.0	444.4	486.5	554.9	606.6
27.5°	370.0	397.6	442.0	516.5	575.4
30°	320.7	348.3	396.4	476.9	542.9
32.5°	270.3	301.5	351.9	439.6	510.5
35°	222.2	252.2	308.7	403.6	480.5
37.5°	175.4	205.4	264.3	368.8	450.4
40°	128.5	159.8	224.6	335.1	418.0
42.5°	84.1	116.5	189.8	301.5	382.0
45°	45.6	75.7	156.2	263.1	343.5
47.5°	25.2	40.8	126.1	227.0	306.3
50°	20.4	22.8	97.3	193.4	264.3
52.5°	16.8	19.2	69.7	161.0	225.8
55°	14.4	16.8	48.0	129.7	185.0
57.5°	12.0	14.4	38.4	99.7	145.3
60°	8.4	14.4	34.8	73.3	108.1
62.5°	7.2	14.4	30.0	50.4	72.1
65°	6.0	16.8	26.4	33.6	40.8
67.5°	4.8	16.8	22.8	21.6	21.6
70°	4.8	16.8	19.2	18.0	19.2
72.5°	4.8	18.0	18.0	16.8	16.8
75°	4.8	15.6	15.6	14.4	14.4
77.5°	4.8	14.4	14.4	13.2	13.2
80°	4.8	13.2	13.2	12.0	10.8
82.5°	4.8	12.0	12.0	10.8	9.6
85°	3.6	10.8	10.8	10.8	7.2
87.5°	3.6	9.6	10.8	9.6	6.0
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	0.17	1.43	0.54	1.74	2.06	14.27	15.52	14.63	15.84	16.15
	3H	2.69	3.81	3.08	4.14	4.50	14.34	15.46	14.72	15.79	16.15
	4H	3.86	4.90	4.27	5.25	5.63	14.41	15.44	14.81	15.79	16.18
	6H	4.91	5.86	5.33	6.23	6.63	14.51	15.46	14.92	15.83	16.22
	8H	5.45	6.35	5.88	6.74	7.15	14.57	15.46	15.00	15.86	16.26
	12H	5.93	6.79	6.37	7.18	7.61	14.63	15.49	15.07	15.88	16.31
4H	2H	3.43	4.47	3.84	4.82	5.20	14.13	15.16	14.53	15.51	15.90
	3H	5.89	6.74	6.31	7.15	7.55	14.30	15.15	14.71	15.55	15.95
	4H	7.24	8.00	7.68	8.42	8.86	14.43	15.18	14.86	15.60	16.05
	6H	8.37	9.03	8.84	9.47	9.94	14.64	15.30	15.11	15.74	16.21
	8H	8.88	9.49	9.35	9.94	10.41	14.77	15.38	15.24	15.83	16.30
	12H	9.34	9.88	9.82	10.36	10.84	14.93	15.47	15.41	15.95	16.42
8H	4H	8.16	8.77	8.63	9.21	9.69	14.43	15.04	14.90	15.49	15.96
	6H	9.76	10.26	10.26	10.75	11.24	14.76	15.26	15.26	15.76	16.24
	8H	10.58	11.03	11.11	11.55	12.04	14.99	15.44	15.51	15.95	16.45
	12H	11.36	11.76	11.88	12.26	12.83	15.31	15.71	15.83	16.21	16.78
12H	4H	8.32	8.86	8.81	9.35	9.82	14.42	14.96	14.91	15.44	15.92
	6H	10.07	10.52	10.59	11.04	11.53	14.79	15.24	15.31	15.76	16.25
	8H	11.08	11.48	11.60	11.97	12.55	15.10	15.50	15.61	15.99	16.57