

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: P1059551

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059551
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-67)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1165D935-X4F0-XX-UDD-WVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

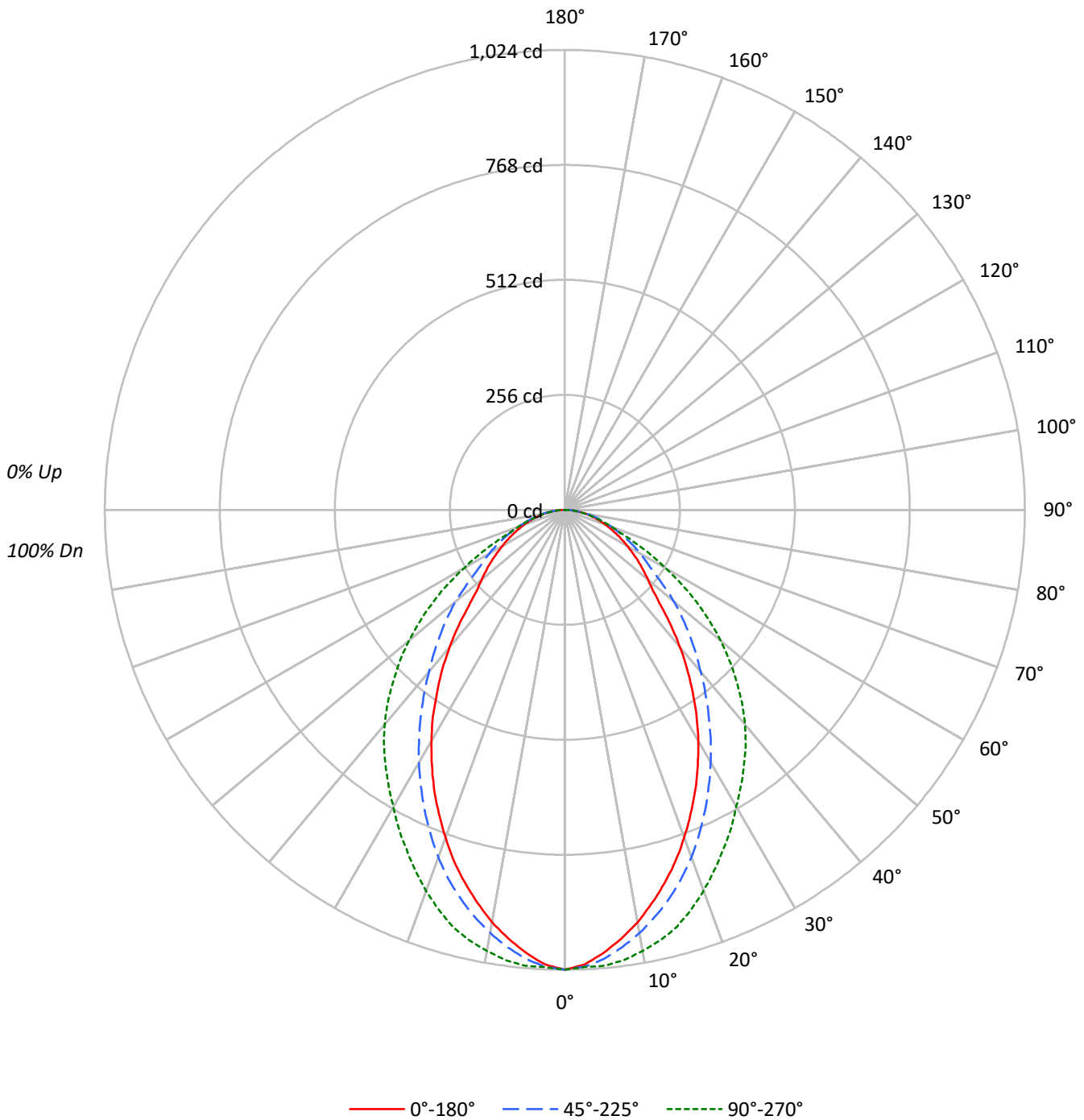
Lumens per Lamp: N/A
Luminaire Lumens: 1849.5 lumens
Efficiency: N/A
Efficacy: 50.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.12 / 1.1
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57				
5	80	69	60	54	78	68	60	54	66	59	54	64	58	53	62	57	53	51				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	44	68	56	49	43	55	48	43	54	47	43	52	47	43	41				
8	65	53	45	39	64	52	45	39	51	44	39	50	43	39	48	43	39	37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	36	45	39	35	34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	37	33	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12023	12023	12023
5°	11673	11829	12012
10°	11121	11407	11894
15°	10449	10901	11689
20°	9704	10290	11280
25°	8911	9564	10809
30°	8057	8805	10351
35°	7107	8002	9963
40°	6108	7212	9568
45°	5023	6498	8971
50°	4408	5789	8266
55°	4080	4940	7323
60°	3748	4540	6061
65°	3501	4168	4771
70°	3296	3790	3790
75°	3103	3484	3267
80°	2921	3165	2759
85°	2748	3072	2102

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8971 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.7	5.1
10°-20°	253.8	13.7
20°-30°	344.1	18.6
30°-40°	359.8	19.5
40°-50°	312.1	16.9
50°-60°	232.2	12.6
60°-70°	148.9	8.1
70°-80°	79.9	4.3
80°-90°	24.1	1.3
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°	692.6	37.4
0°-40°	1052.4	56.9
0°-60°	1596.6	86.3
0°-90°	1849.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1849.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1024	1024	1024	1024	1024	
5°	990	1007	1004	1011	1019	93
15°	860	880	897	933	962	241
25°	688	709	738	787	834	315
35°	496	520	558	629	695	310
45°	302	325	391	475	540	238
55°	199	204	241	310	358	178
65°	126	137	150	160	172	125
75°	68	79	77	73	72	72
85°	20	25	23	19	16	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1023.9	1023.9	1023.9	1023.9	1023.9
2.5°	1013.1	1027.5	1017.9	1017.9	1019.1
5°	990.3	1007.1	1003.5	1010.7	1019.1
7.5°	962.7	980.7	981.9	998.7	1010.7
10°	932.7	950.7	956.7	980.7	997.5
12.5°	896.7	917.1	927.9	957.9	981.9
15°	859.5	879.9	896.7	932.7	961.5
17.5°	819.9	840.3	861.9	902.7	933.9
20°	776.6	798.2	823.5	864.3	902.7
22.5°	732.2	755.0	781.4	825.9	869.1
25°	687.8	709.4	738.2	787.4	834.3
27.5°	641.0	663.8	693.8	747.8	800.7
30°	594.2	617.0	649.4	707.0	763.4
32.5°	546.2	569.0	603.8	668.6	729.8
35°	495.8	519.8	558.2	629.0	695.0
37.5°	447.7	470.5	513.8	591.8	661.4
40°	398.5	422.5	470.5	554.6	624.2
42.5°	350.5	374.5	430.9	515.0	583.4
45°	302.5	325.3	391.3	475.3	540.2
47.5°	265.3	282.1	354.1	433.3	498.2
50°	241.3	247.3	316.9	392.5	452.5
52.5°	219.7	224.5	276.1	351.7	405.7
55°	199.3	204.1	241.3	309.7	357.7
57.5°	178.9	184.9	214.9	266.5	309.7
60°	159.6	166.9	193.3	228.1	258.1
62.5°	142.8	151.2	171.7	193.3	213.7
65°	126.0	136.8	150.0	159.6	171.7
67.5°	110.4	122.4	129.6	132.0	133.2
70°	96.0	108.0	110.4	110.4	110.4
72.5°	81.6	94.8	92.4	91.2	90.0
75°	68.4	79.2	76.8	73.2	72.0
77.5°	55.2	64.8	61.2	58.8	55.2
80°	43.2	50.4	46.8	44.4	40.8
82.5°	32.4	37.2	33.6	31.2	27.6
85°	20.4	25.2	22.8	19.2	15.6
87.5°	10.8	14.4	12.0	10.8	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	15.43	16.91	15.79	17.22	17.54	18.18	19.67	18.55	19.98	20.29
	3H	17.14	18.47	17.51	18.79	19.16	19.20	20.53	19.58	20.86	21.22
	4H	17.80	19.04	18.20	19.39	19.77	19.57	20.81	19.97	21.16	21.54
	6H	18.30	19.45	18.71	19.81	20.21	19.82	20.97	20.23	21.34	21.73
	8H	18.48	19.57	18.90	19.96	20.36	19.89	20.99	20.32	21.38	21.78
	12H	18.60	19.65	19.03	20.03	20.46	19.93	20.98	20.36	21.36	21.79
4H	2H	16.20	17.45	16.60	17.80	18.18	18.45	19.70	18.85	20.05	20.43
	3H	18.13	19.16	18.54	19.56	19.96	19.71	20.74	20.12	21.14	21.54
	4H	18.94	19.87	19.37	20.28	20.72	20.19	21.12	20.63	21.54	21.98
	6H	19.58	20.39	20.04	20.83	21.29	20.57	21.38	21.03	21.83	22.29
	8H	19.80	20.56	20.27	21.00	21.47	20.69	21.44	21.15	21.89	22.35
	12H	19.98	20.65	20.46	21.13	21.60	20.76	21.43	21.24	21.91	22.38
8H	4H	19.26	20.01	19.72	20.46	20.92	20.38	21.14	20.85	21.58	22.05
	6H	20.05	20.67	20.55	21.16	21.64	20.87	21.50	21.37	21.99	22.47
	8H	20.38	20.94	20.89	21.45	21.94	21.05	21.61	21.56	22.12	22.61
	12H	20.65	21.15	21.16	21.64	22.21	21.18	21.68	21.69	22.17	22.74
12H	4H	19.28	19.95	19.76	20.43	20.91	20.40	21.07	20.88	21.55	22.02
	6H	20.10	20.66	20.62	21.17	21.66	20.91	21.47	21.42	21.98	22.47
	8H	20.50	20.99	21.01	21.48	22.05	21.14	21.64	21.65	22.13	22.69