

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: P1059419

Luminaire Tested: S123RDR-H1000D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059419
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-H1000D835-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, 80 CRI LEDS
Ballast/Driver: -

Summary

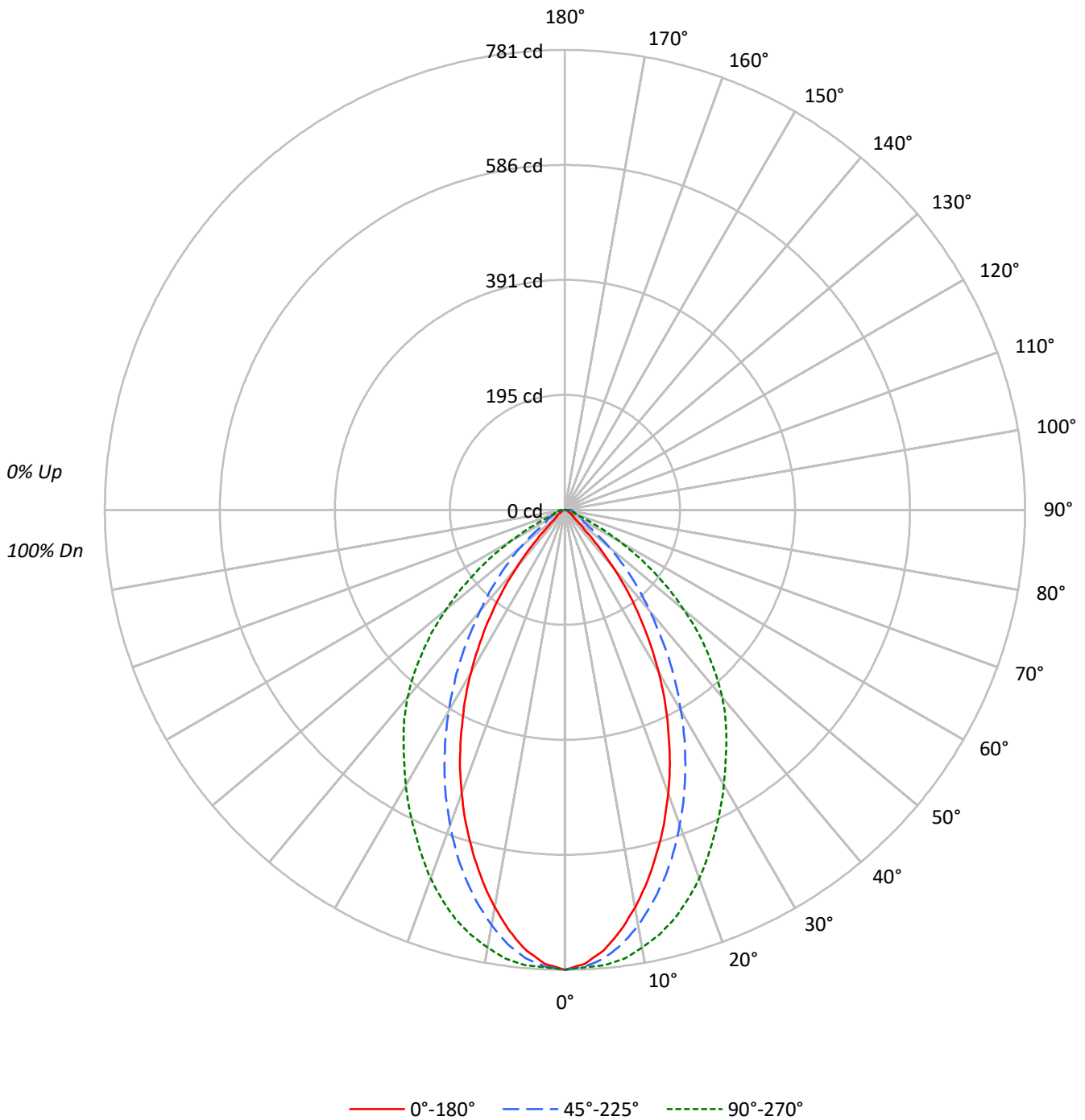
Lumens per Lamp: N/A
Luminaire Lumens: 938.1 lumens
Efficiency: N/A
Efficacy: 30.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	9171	9171	9171
5°	8855	9009	9150
10°	8174	8543	9000
15°	7332	7898	8739
20°	6402	7119	8327
25°	5385	6267	7814
30°	4324	5344	7319
35°	3167	4399	6848
40°	1959	3423	6371
45°	754	2579	5673
50°	371	1767	4799
55°	293	979	3765
60°	197	813	2525
65°	167	731	1128
70°	165	656	656
75°	218	703	649
80°	325	886	724
85°	485	1442	970

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5673 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.6	7.6
10°-20°	183.3	19.5
20°-30°	227.5	24.3
30°-40°	203.8	21.7
40°-50°	134.0	14.3
50°-60°	67.1	7.2
60°-70°	26.5	2.8
70°-80°	14.8	1.6
80°-90°	9.3	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°	482.5	51.4
0°-40°	686.3	73.2
0°-60°	887.5	94.6
0°-90°	938.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	938.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	781	781	781	781	781	
5°	751	763	764	769	776	70
15°	603	622	650	694	719	168
25°	416	442	484	552	603	190
35°	221	251	307	401	478	137
45°	45	75	155	262	342	43
55°	14	17	48	129	184	13
65°	6	17	26	33	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°	781.0	781.0	781.0	781.0	781.0
2.5°	771.5	782.2	776.3	776.3	777.5
5°	751.2	763.1	764.3	769.1	776.3
7.5°	721.3	736.9	744.0	758.3	769.1
10°	685.5	702.2	716.5	741.6	754.8
12.5°	646.1	662.8	684.3	718.9	739.2
15°	603.1	622.2	649.7	693.9	718.9
17.5°	558.9	578.0	611.5	661.6	693.9
20°	512.3	533.8	569.7	627.0	666.4
22.5°	465.8	489.6	527.9	590.0	635.3
25°	415.6	441.9	483.7	551.7	603.1
27.5°	367.8	395.3	439.5	513.5	572.0
30°	318.9	346.3	394.1	474.1	539.8
32.5°	268.7	299.8	349.9	437.1	507.6
35°	220.9	250.8	306.9	401.3	477.7
37.5°	174.4	204.2	262.7	366.6	447.8
40°	127.8	158.8	223.3	333.2	415.6
42.5°	83.6	115.8	188.7	299.8	379.8
45°	45.4	75.2	155.3	261.5	341.6
47.5°	25.1	40.6	125.4	225.7	304.5
50°	20.3	22.7	96.7	192.3	262.7
52.5°	16.7	19.1	69.3	160.0	224.5
55°	14.3	16.7	47.8	129.0	183.9
57.5°	11.9	14.3	38.2	99.1	144.5
60°	8.4	14.3	34.6	72.8	107.5
62.5°	7.2	14.3	29.9	50.2	71.7
65°	6.0	16.7	26.3	33.4	40.6
67.5°	4.8	16.7	22.7	21.5	21.5
70°	4.8	16.7	19.1	17.9	19.1
72.5°	4.8	17.9	17.9	16.7	16.7
75°	4.8	15.5	15.5	14.3	14.3
77.5°	4.8	14.3	14.3	13.1	13.1
80°	4.8	13.1	13.1	11.9	10.7
82.5°	4.8	11.9	11.9	10.7	9.6
85°	3.6	10.7	10.7	10.7	7.2
87.5°	3.6	9.6	10.7	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	0.14	1.40	0.51	1.71	2.03	14.24	15.50	14.61	15.81	16.13
	3H	2.67	3.79	3.06	4.12	4.48	14.32	15.44	14.70	15.77	16.13
	4H	3.85	4.88	4.25	5.23	5.62	14.39	15.42	14.79	15.77	16.16
	6H	4.90	5.85	5.31	6.22	6.62	14.48	15.43	14.90	15.81	16.20
	8H	5.44	6.34	5.87	6.73	7.14	14.54	15.44	14.98	15.83	16.24
	12H	5.92	6.78	6.36	7.17	7.60	14.61	15.47	15.05	15.86	16.29
4H	2H	3.42	4.45	3.82	4.80	5.19	14.11	15.14	14.51	15.49	15.88
	3H	5.88	6.72	6.29	7.13	7.53	14.28	15.13	14.69	15.53	15.93
	4H	7.22	7.98	7.66	8.40	8.84	14.41	15.16	14.84	15.58	16.03
	6H	8.35	9.01	8.82	9.45	9.92	14.62	15.27	15.08	15.72	16.19
	8H	8.86	9.48	9.33	9.92	10.40	14.74	15.36	15.22	15.80	16.28
	12H	9.32	9.86	9.81	10.34	10.82	14.91	15.44	15.39	15.93	16.40
8H	4H	8.14	8.75	8.61	9.20	9.67	14.41	15.02	14.88	15.47	15.94
	6H	9.73	10.23	10.24	10.73	11.21	14.74	15.24	15.24	15.73	16.22
	8H	10.56	11.01	11.08	11.53	12.02	14.96	15.41	15.49	15.93	16.42
	12H	11.34	11.74	11.85	12.23	12.80	15.29	15.69	15.81	16.18	16.76
12H	4H	8.30	8.84	8.79	9.33	9.80	14.40	14.94	14.88	15.42	15.90
	6H	10.05	10.50	10.57	11.02	11.51	14.77	15.22	15.29	15.73	16.23
	8H	11.05	11.45	11.57	11.95	12.52	15.08	15.47	15.59	15.97	16.54