

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: P1059457

Luminaire Tested: S123RDR-H1000D930-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059457
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-H1000D930-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

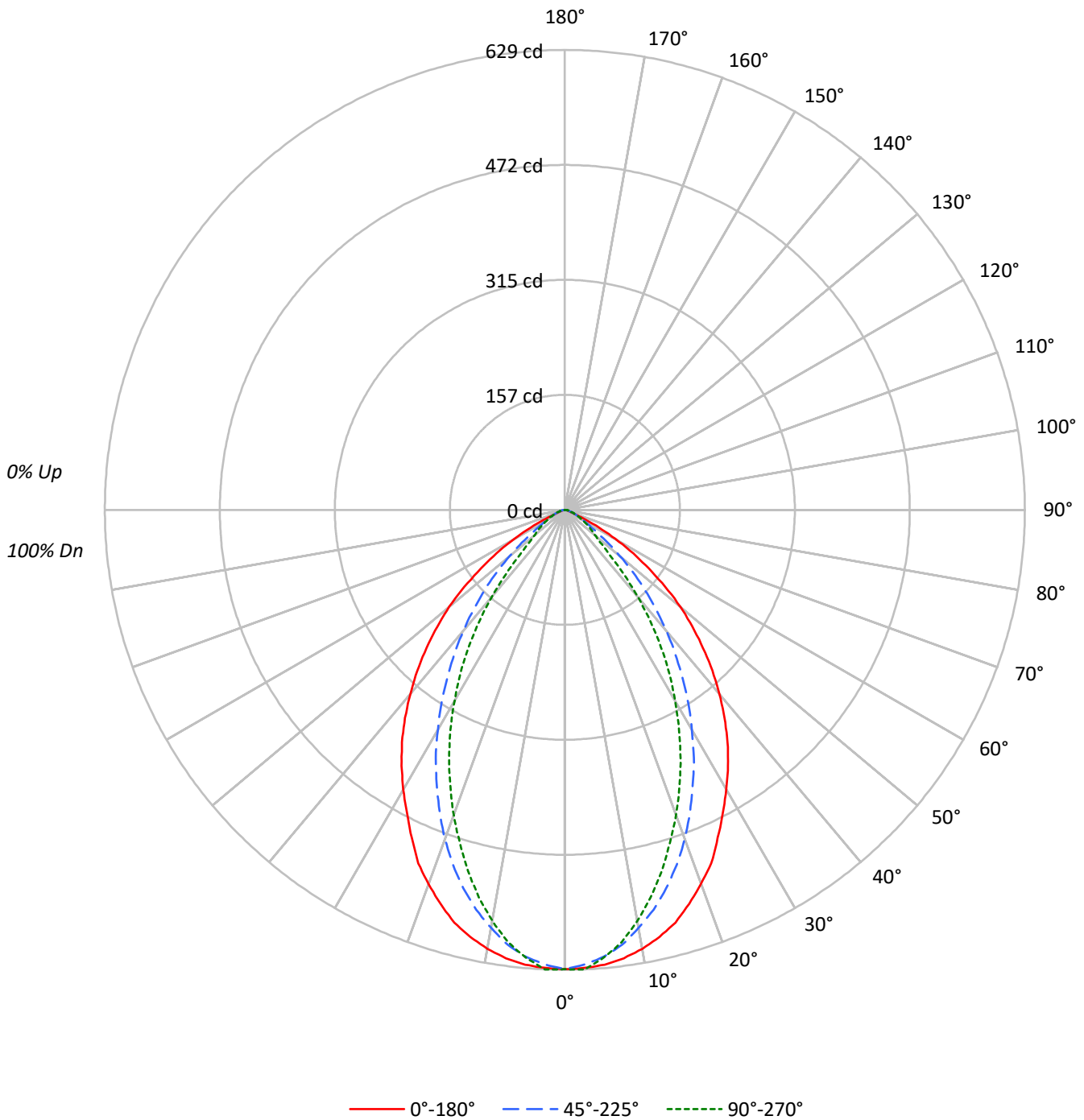
Lumens per Lamp: N/A
Luminaire Lumens: 811.0 lumens
Efficiency: N/A
Efficacy: 26.0 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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	70	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°	7377	7377	7377
5°	7359	7233	7244
10°	7270	6922	6806
15°	7104	6514	6218
20°	6805	5991	5553
25°	6413	5368	4851
30°	5986	4708	4088
35°	5562	4015	3290
40°	5039	3309	2385
45°	4441	2567	1436
50°	3767	1794	977
55°	2866	1075	817
60°	1872	686	639
65°	784	514	514
70°	268	367	402
75°	222	263	309
80°	128	196	264
85°	135	135	256

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4441 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	7.2
10°-20°	151.8	18.7
20°-30°	194.7	24.0
30°-40°	182.7	22.5
40°-50°	127.5	15.7
50°-60°	65.9	8.1
60°-70°	22.5	2.8
70°-80°	6.4	0.8
80°-90°	1.4	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°	404.6	49.9
0°-40°	587.3	72.4
0°-60°	780.7	96.3
0°-90°	811.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	811.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	628	628	628	628	628	
5°	624	623	614	616	615	59
15°	584	570	536	518	512	164
25°	495	464	414	386	374	228
35°	388	340	280	244	230	242
45°	267	219	155	107	86	206
55°	140	105	52	41	40	126
65°	28	24	18	18	18	33
75°	5	5	6	7	7	5
85°	1	1	1	1	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	628.2	628.2	628.2	628.2	628.2
2.5°	627.2	628.2	622.4	628.2	629.2
5°	624.3	623.3	613.6	616.5	614.6
7.5°	618.5	615.6	600.0	596.1	596.1
10°	609.7	603.9	580.5	573.7	570.8
12.5°	598.1	590.3	560.1	547.5	542.6
15°	584.4	569.9	535.8	518.3	511.5
17.5°	565.0	545.5	508.6	488.2	477.5
20°	544.6	520.3	479.4	455.1	444.4
22.5°	523.2	494.0	447.3	421.1	409.4
25°	495.0	463.9	414.3	386.1	374.4
27.5°	467.7	434.7	382.2	350.1	338.4
30°	441.5	402.6	347.2	316.0	301.5
32.5°	415.2	371.5	314.1	280.1	266.4
35°	388.0	340.4	280.1	244.1	229.5
37.5°	358.8	310.2	248.0	209.1	191.6
40°	328.7	278.1	215.9	172.1	155.6
42.5°	298.5	248.9	183.8	139.1	119.6
45°	267.4	218.8	154.6	107.0	86.5
47.5°	236.3	188.7	126.4	77.8	65.2
50°	206.2	160.5	98.2	57.4	53.5
52.5°	173.1	133.2	73.9	47.6	46.7
55°	140.0	105.0	52.5	40.8	39.9
57.5°	110.9	81.7	37.9	34.0	33.1
60°	79.7	58.3	29.2	28.2	27.2
62.5°	52.5	39.9	23.3	22.4	22.4
65°	28.2	24.3	18.5	17.5	18.5
67.5°	11.7	13.6	13.6	14.6	14.6
70°	7.8	8.8	10.7	11.7	11.7
72.5°	5.8	6.8	7.8	8.8	8.8
75°	4.9	4.9	5.8	6.8	6.8
77.5°	2.9	3.9	3.9	4.9	5.8
80°	1.9	2.9	2.9	3.9	3.9
82.5°	1.0	1.9	1.9	2.9	2.9
85°	1.0	1.0	1.0	1.0	1.9
87.5°	0.0	0.0	0.0	0.0	1.0
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	13.28	14.54	13.64	14.85	15.16	6.78	8.04	7.14	8.35	8.66
	3H	13.23	14.34	13.61	14.67	15.03	7.55	8.66	7.94	8.99	9.36
	4H	13.18	14.21	13.58	14.56	14.94	7.76	8.79	8.16	9.14	9.52
	6H	13.11	14.05	13.52	14.42	14.82	7.90	8.84	8.32	9.22	9.61
	8H	13.06	13.96	13.50	14.35	14.75	7.94	8.83	8.37	9.22	9.63
	12H	13.02	13.87	13.45	14.26	14.69	7.95	8.80	8.39	9.19	9.62
4H	2H	13.12	14.15	13.53	14.50	14.89	7.03	8.06	7.44	8.42	8.80
	3H	13.11	13.94	13.52	14.35	14.75	7.95	8.78	8.36	9.19	9.59
	4H	13.06	13.80	13.49	14.22	14.67	8.22	8.96	8.66	9.38	9.83
	6H	13.00	13.64	13.46	14.09	14.55	8.44	9.07	8.90	9.52	9.99
	8H	12.95	13.54	13.42	13.99	14.46	8.50	9.09	8.97	9.54	10.01
	12H	12.90	13.43	13.39	13.91	14.39	8.53	9.06	9.02	9.54	10.02
8H	4H	12.94	13.54	13.42	13.99	14.46	8.20	8.80	8.67	9.25	9.72
	6H	12.88	13.36	13.39	13.86	14.35	8.47	8.96	8.98	9.45	9.94
	8H	12.83	13.27	13.35	13.78	14.28	8.58	9.01	9.10	9.53	10.02
	12H	12.79	13.18	13.31	13.67	14.25	8.65	9.03	9.17	9.53	10.10
12H	4H	12.90	13.42	13.39	13.91	14.38	8.17	8.69	8.65	9.17	9.65
	6H	12.82	13.26	13.35	13.78	14.27	8.43	8.87	8.96	9.39	9.88
	8H	12.79	13.18	13.31	13.67	14.25	8.57	8.96	9.09	9.45	10.02