

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: P1059421

Luminaire Tested: S123RDR-H1000D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059421
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-H1000D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

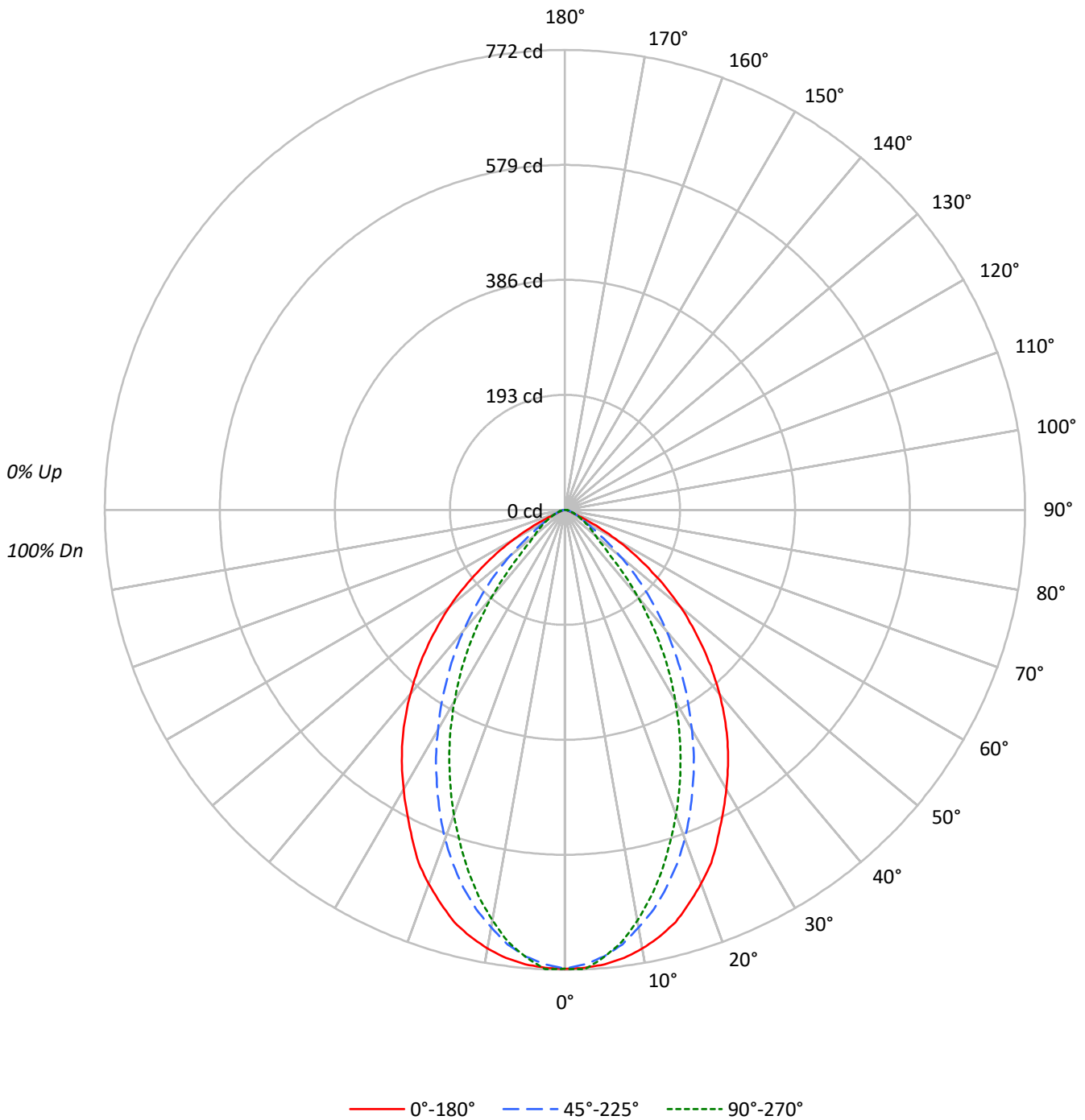
Lumens per Lamp: N/A
Luminaire Lumens: 994.7 lumens
Efficiency: N/A
Efficacy: 31.9 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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				
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	70	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°	9048	9048	9048
5°	9026	8871	8885
10°	8918	8491	8348
15°	8714	7989	7627
20°	8346	7348	6812
25°	7866	6583	5950
30°	7342	5773	5014
35°	6822	4924	4035
40°	6179	4059	2925
45°	5447	3149	1764
50°	4620	2201	1198
55°	3517	1318	1001
60°	2297	841	784
65°	961	631	631
70°	326	450	491
75°	272	327	377
80°	162	243	325
85°	162	162	323

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5447 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.2	7.2
10°-20°	186.2	18.7
20°-30°	238.8	24.0
30°-40°	224.1	22.5
40°-50°	156.3	15.7
50°-60°	80.8	8.1
60°-70°	27.6	2.8
70°-80°	7.9	0.8
80°-90°	1.7	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°	496.2	49.9
0°-40°	720.3	72.4
0°-60°	957.5	96.3
0°-90°	994.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	994.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	770	770	770	770	770	
5°	766	764	753	756	754	73
15°	717	699	657	636	627	201
25°	607	569	508	474	459	279
35°	476	418	344	299	282	296
45°	328	268	190	131	106	252
55°	172	129	64	50	49	155
65°	35	30	23	22	23	41
75°	6	6	7	8	8	6
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°	770.5	770.5	770.5	770.5	770.5
2.5°	769.3	770.5	763.4	770.5	771.7
5°	765.7	764.5	752.6	756.2	753.8
7.5°	758.6	755.0	735.9	731.2	731.2
10°	747.9	740.7	712.1	703.7	700.1
12.5°	733.5	724.0	687.0	671.5	665.6
15°	716.8	698.9	657.2	635.7	627.4
17.5°	693.0	669.1	623.8	598.8	585.6
20°	667.9	638.1	588.0	558.2	545.1
22.5°	641.7	605.9	548.7	516.5	502.1
25°	607.1	568.9	508.1	473.5	459.2
27.5°	573.7	533.2	468.7	429.4	415.1
30°	541.5	493.8	425.8	387.6	369.8
32.5°	509.3	455.6	385.3	343.5	326.8
35°	475.9	417.5	343.5	299.4	281.5
37.5°	440.1	380.5	304.1	256.4	235.0
40°	403.1	341.1	264.8	211.1	190.8
42.5°	366.2	305.3	225.4	170.6	146.7
45°	328.0	268.4	189.6	131.2	106.2
47.5°	289.8	231.4	155.1	95.4	79.9
50°	252.9	196.8	120.5	70.4	65.6
52.5°	212.3	163.4	90.6	58.4	57.3
55°	171.8	128.8	64.4	50.1	48.9
57.5°	136.0	100.2	46.5	41.7	40.6
60°	97.8	71.6	35.8	34.6	33.4
62.5°	64.4	48.9	28.6	27.4	27.4
65°	34.6	29.8	22.7	21.5	22.7
67.5°	14.3	16.7	16.7	17.9	17.9
70°	9.5	10.7	13.1	14.3	14.3
72.5°	7.2	8.3	9.5	10.7	10.7
75°	6.0	6.0	7.2	8.3	8.3
77.5°	3.6	4.8	4.8	6.0	7.2
80°	2.4	3.6	3.6	4.8	4.8
82.5°	1.2	2.4	2.4	3.6	3.6
85°	1.2	1.2	1.2	1.2	2.4
87.5°	0.0	0.0	0.0	0.0	1.2
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	13.99	15.25	14.35	15.56	15.87	7.49	8.75	7.85	9.06	9.37
	3H	13.94	15.05	14.32	15.38	15.74	8.26	9.37	8.64	9.70	10.07
	4H	13.89	14.92	14.29	15.27	15.65	8.46	9.49	8.87	9.84	10.23
	6H	13.82	14.76	14.23	15.13	15.53	8.61	9.55	9.02	9.92	10.32
	8H	13.77	14.66	14.20	15.06	15.46	8.65	9.54	9.08	9.93	10.33
	12H	13.73	14.58	14.16	14.96	15.40	8.66	9.51	9.10	9.90	10.33
4H	2H	13.83	14.86	14.24	15.21	15.60	7.74	8.77	8.15	9.13	9.51
	3H	13.82	14.65	14.23	15.06	15.46	8.65	9.49	9.07	9.89	10.30
	4H	13.77	14.51	14.20	14.93	15.37	8.92	9.66	9.36	10.08	10.53
	6H	13.71	14.35	14.17	14.79	15.26	9.14	9.78	9.61	10.23	10.70
	8H	13.66	14.25	14.13	14.70	15.17	9.20	9.80	9.68	10.25	10.72
	12H	13.61	14.13	14.10	14.62	15.09	9.24	9.77	9.73	10.25	10.73
8H	4H	13.65	14.25	14.12	14.70	15.17	8.91	9.50	9.38	9.95	10.42
	6H	13.59	14.07	14.09	14.57	15.06	9.18	9.66	9.68	10.16	10.64
	8H	13.54	13.98	14.06	14.49	14.99	9.29	9.72	9.81	10.24	10.73
	12H	13.50	13.89	14.02	14.38	14.96	9.36	9.75	9.88	10.24	10.82
12H	4H	13.61	14.13	14.09	14.61	15.09	8.87	9.39	9.36	9.88	10.35
	6H	13.53	13.97	14.06	14.49	14.98	9.14	9.58	9.67	10.09	10.59
	8H	13.50	13.89	14.02	14.38	14.96	9.28	9.67	9.80	10.16	10.74