

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: P1059445

Luminaire Tested: S123RDR-H1000D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059445
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D927-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

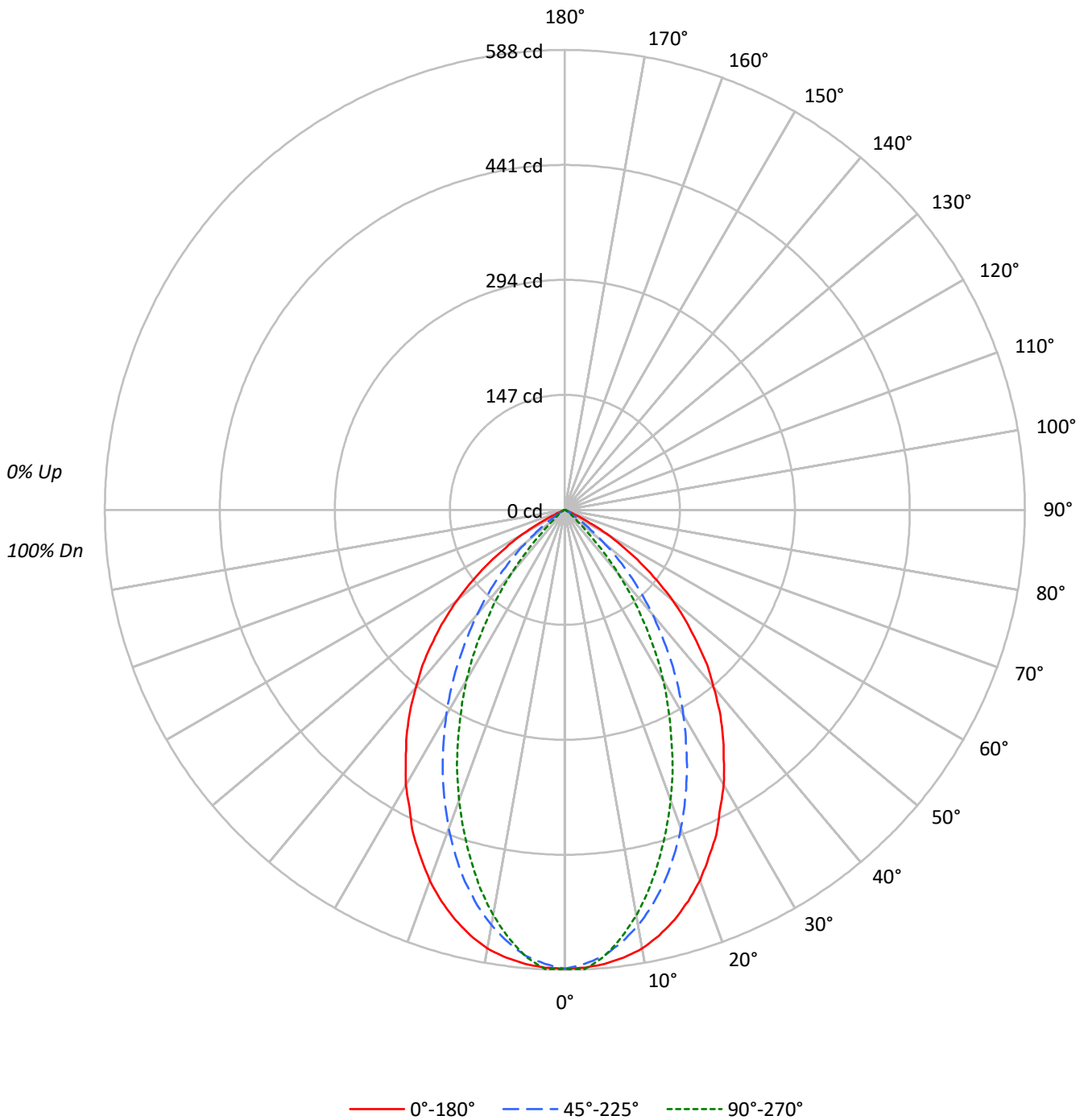
Lumens per Lamp: N/A
Luminaire Lumens: 669.5 lumens
Efficiency: N/A
Efficacy: 21.5 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6889	6889	6889
5°	6871	6748	6760
10°	6793	6433	6275
15°	6593	5984	5639
20°	6304	5420	4935
25°	5937	4786	4175
30°	5509	4112	3407
35°	5052	3399	2533
40°	4533	2664	1622
45°	3954	1946	674
50°	3279	1156	259
55°	2418	483	192
60°	1465	178	110
65°	395	106	53
70°	0	31	31
75°	0	0	41
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3954 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.0	8.1
10°-20°	139.4	20.8
20°-30°	173.7	25.9
30°-40°	155.3	23.2
40°-50°	98.0	14.6
50°-60°	41.0	6.1
60°-70°	7.7	1.2
70°-80°	0.2	0.0
80°-90°	0.0	0.0
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°	367.1	54.8
0°-40°	522.5	78.0
0°-60°	661.5	98.8
0°-90°	669.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	669.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	587	587	587	587	587	
5°	583	582	572	574	574	55
15°	542	529	492	472	464	152
25°	458	421	369	337	322	210
35°	352	301	237	195	177	220
45°	238	185	117	62	41	184
55°	118	81	24	9	9	106
65°	14	10	4	2	2	20
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	586.7	586.7	586.7	586.7	586.7
2.5°	585.8	586.7	581.1	586.7	587.7
5°	582.9	582.0	572.5	574.4	573.5
7.5°	577.3	574.4	557.4	553.7	551.8
10°	569.7	562.2	539.5	530.0	526.3
12.5°	557.4	547.0	517.7	502.6	497.0
15°	542.3	529.1	492.2	471.5	463.9
17.5°	524.4	505.5	463.9	441.2	429.9
20°	504.5	478.1	433.7	406.3	394.9
22.5°	480.9	451.6	401.5	372.3	360.0
25°	458.2	421.4	369.4	337.3	322.2
27.5°	429.9	391.1	335.4	302.3	286.3
30°	406.3	361.9	303.3	266.4	251.3
32.5°	377.9	331.6	270.2	229.6	215.4
35°	352.4	301.4	237.1	194.6	176.7
37.5°	325.0	272.1	204.1	159.7	142.7
40°	295.7	242.8	173.8	124.7	105.8
42.5°	269.3	213.5	143.6	92.6	73.7
45°	238.1	185.2	117.2	62.4	40.6
47.5°	209.7	158.7	88.8	35.0	21.7
50°	179.5	131.3	63.3	18.0	14.2
52.5°	148.3	104.9	41.6	12.3	11.3
55°	118.1	81.3	23.6	9.4	9.4
57.5°	88.8	58.6	12.3	7.6	6.6
60°	62.4	38.7	7.6	5.7	4.7
62.5°	35.9	22.7	5.7	3.8	3.8
65°	14.2	10.4	3.8	1.9	1.9
67.5°	0.9	2.8	1.9	0.9	0.9
70°	0.0	0.0	0.9	0.9	0.9
72.5°	0.0	0.0	0.9	0.9	0.9
75°	0.0	0.0	0.0	0.0	0.9
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	11.90	13.07	12.26	13.39	13.70	0.00	0.00	0.00	0.00	0.00
	3H	11.74	12.77	12.12	13.10	13.47	0.00	0.00	0.00	0.00	0.00
	4H	11.65	12.61	12.06	12.96	13.34	0.00	0.00	0.00	0.00	0.00
	6H	11.56	12.43	11.98	12.80	13.20	0.00	0.00	0.00	0.00	0.00
	8H	11.51	12.33	11.94	12.72	13.13	0.00	0.00	0.00	0.00	0.00
	12H	11.46	12.24	11.89	12.63	13.06	0.00	0.00	0.00	0.00	0.00
4H	2H	11.66	12.61	12.06	12.96	13.35	0.00	0.00	0.00	0.00	0.00
	3H	11.49	12.26	11.91	12.67	13.07	0.00	0.00	0.00	0.00	0.00
	4H	11.39	12.07	11.82	12.49	12.94	0.00	0.00	0.00	0.00	0.00
	6H	11.29	11.87	11.76	12.32	12.79	0.00	0.00	0.00	0.00	0.00
	8H	11.23	11.77	11.70	12.22	12.69	0.00	0.00	0.00	0.00	0.00
	12H	11.17	11.64	11.66	12.13	12.61	0.00	0.00	0.00	0.00	0.00
8H	4H	11.23	11.77	11.70	12.22	12.69	0.00	0.00	0.00	0.00	0.00
	6H	11.11	11.55	11.62	12.05	12.53	0.00	0.00	0.00	0.00	0.00
	8H	11.04	11.43	11.56	11.95	12.45	0.00	0.00	0.00	0.00	0.00
	12H	10.98	11.33	11.50	11.83	12.41	0.00	0.00	0.00	0.00	0.00
12H	4H	11.17	11.64	11.66	12.13	12.61	0.00	0.00	0.00	0.00	0.00
	6H	11.04	11.43	11.57	11.95	12.45	0.00	0.00	0.00	0.00	0.00
	8H	10.98	11.33	11.50	11.83	12.41	0.00	0.00	0.00	0.00	0.00