

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059004

Luminaire Tested: S123RDRP-S1000D830-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059004
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: S123RDRP-S1000D830-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

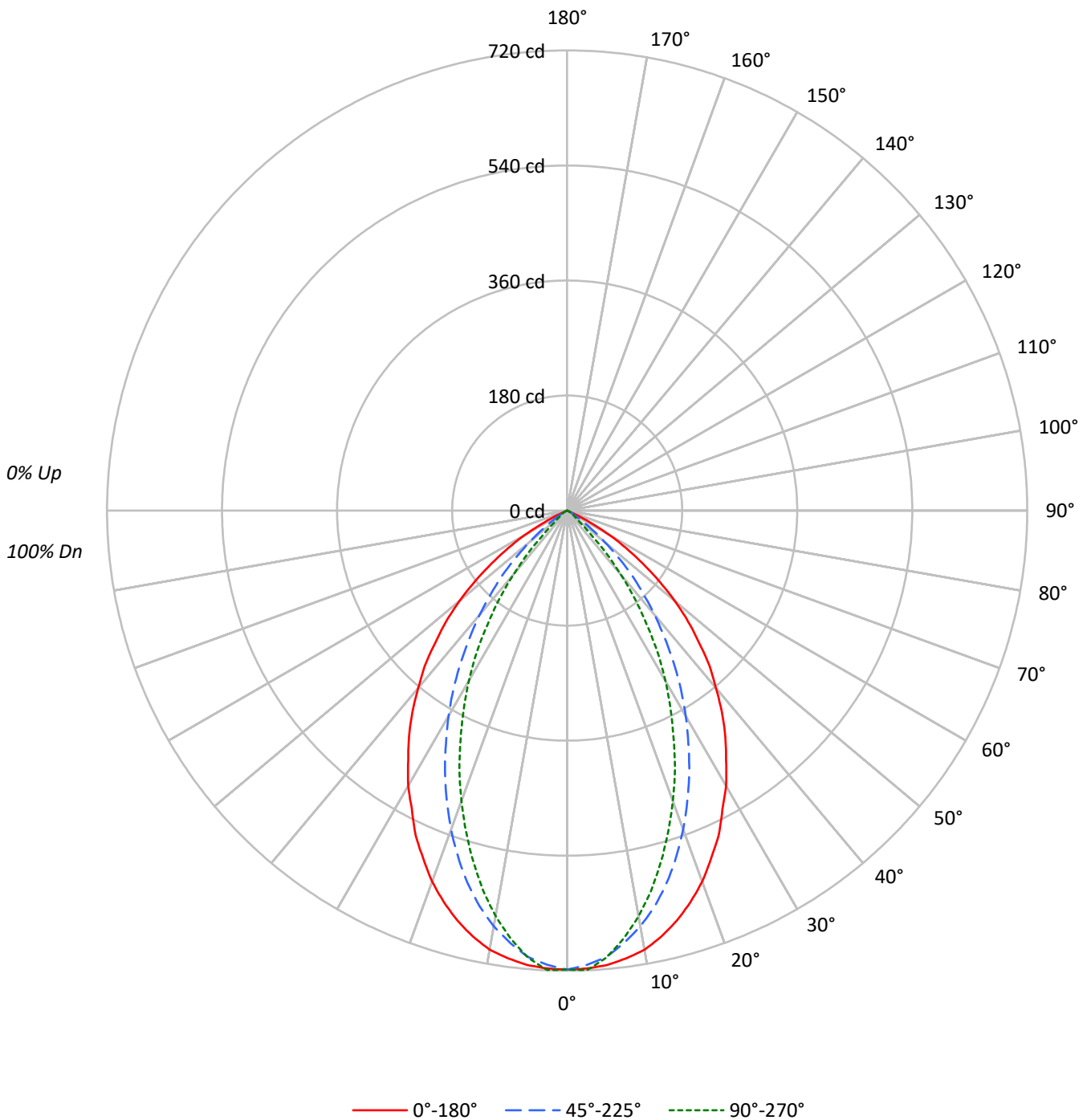
Lumens per Lamp: N/A
Luminaire Lumens: 819.7 lumens
Efficiency: N/A
Efficacy: 23.4 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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	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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84					84			
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76					76			
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69					69			
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63					63			
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58					58			
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53					53			
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49					49			
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46					46			
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42					42			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8435	8435	8435
5°	8413	8263	8276
10°	8317	7876	7682
15°	8072	7327	6905
20°	7719	6634	6042
25°	7269	5860	5110
30°	6744	5034	4172
35°	6185	4161	3101
40°	5551	3262	1987
45°	4841	2381	825
50°	4015	1416	318
55°	2960	592	237
60°	1792	218	136
65°	483	128	64
70°	0	41	41
75°	0	0	54
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4841 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.1	8.1
10°-20°	170.7	20.8
20°-30°	212.7	25.9
30°-40°	190.2	23.2
40°-50°	120.0	14.6
50°-60°	50.2	6.1
60°-70°	9.5	1.2
70°-80°	0.3	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°	449.5	54.8
0°-40°	639.7	78.0
0°-60°	809.9	98.8
0°-90°	819.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	819.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	718	718	718	718	718	
5°	714	712	701	703	702	68
15°	664	648	603	577	568	186
25°	561	516	452	413	394	257
35°	432	369	290	238	216	269
45°	292	227	143	76	50	225
55°	145	100	29	12	12	130
65°	17	13	5	2	2	24
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°	718.3	718.3	718.3	718.3	718.3
2.5°	717.2	718.3	711.4	718.3	719.5
5°	713.7	712.5	701.0	703.3	702.1
7.5°	706.8	703.3	682.5	677.8	675.5
10°	697.5	688.3	660.5	648.9	644.3
12.5°	682.5	669.7	633.9	615.4	608.4
15°	664.0	647.8	602.7	577.2	568.0
17.5°	642.0	618.8	568.0	540.2	526.3
20°	617.7	585.3	530.9	497.4	483.5
22.5°	588.8	552.9	491.6	455.8	440.7
25°	561.0	515.9	452.3	413.0	394.4
27.5°	526.3	478.9	410.6	370.2	350.5
30°	497.4	443.0	371.3	326.2	307.7
32.5°	462.7	406.0	330.8	281.1	263.7
35°	431.5	369.0	290.3	238.3	216.3
37.5°	397.9	333.1	249.9	195.5	174.7
40°	362.1	297.3	212.8	152.7	129.6
42.5°	329.7	261.4	175.8	113.4	90.2
45°	291.5	226.7	143.4	76.3	49.7
47.5°	256.8	194.3	108.7	42.8	26.6
50°	219.8	160.8	77.5	22.0	17.4
52.5°	181.6	128.4	50.9	15.0	13.9
55°	144.6	99.5	28.9	11.6	11.6
57.5°	108.7	71.7	15.0	9.3	8.1
60°	76.3	47.4	9.3	6.9	5.8
62.5°	44.0	27.8	6.9	4.6	4.6
65°	17.4	12.7	4.6	2.3	2.3
67.5°	1.2	3.5	2.3	1.2	1.2
70°	0.0	0.0	1.2	1.2	1.2
72.5°	0.0	0.0	1.2	1.2	1.2
75°	0.0	0.0	0.0	0.0	1.2
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	12.60	13.77	12.96	14.09	14.40	0.00	0.00	0.00	0.00	0.00
	3H	12.44	13.47	12.82	13.80	14.17	0.00	0.00	0.00	0.00	0.00
	4H	12.35	13.31	12.76	13.66	14.04	0.00	0.00	0.00	0.00	0.00
	6H	12.26	13.13	12.68	13.50	13.90	0.00	0.00	0.00	0.00	0.00
	8H	12.21	13.03	12.64	13.42	13.83	0.00	0.00	0.00	0.00	0.00
	12H	12.16	12.94	12.59	13.33	13.76	0.00	0.00	0.00	0.00	0.00
4H	2H	12.36	13.31	12.76	13.66	14.05	0.00	0.00	0.00	0.00	0.00
	3H	12.19	12.96	12.61	13.37	13.77	0.00	0.00	0.00	0.00	0.00
	4H	12.09	12.77	12.52	13.19	13.64	0.00	0.00	0.00	0.00	0.00
	6H	11.99	12.57	12.46	13.02	13.49	0.00	0.00	0.00	0.00	0.00
	8H	11.92	12.47	12.40	12.92	13.39	0.00	0.00	0.00	0.00	0.00
	12H	11.87	12.34	12.36	12.83	13.31	0.00	0.00	0.00	0.00	0.00
8H	4H	11.93	12.47	12.40	12.92	13.39	0.00	0.00	0.00	0.00	0.00
	6H	11.81	12.25	12.31	12.75	13.23	0.00	0.00	0.00	0.00	0.00
	8H	11.74	12.13	12.26	12.65	13.15	0.00	0.00	0.00	0.00	0.00
	12H	11.68	12.03	12.20	12.53	13.11	0.00	0.00	0.00	0.00	0.00
12H	4H	11.87	12.34	12.36	12.83	13.31	0.00	0.00	0.00	0.00	0.00
	6H	11.74	12.13	12.26	12.65	13.15	0.00	0.00	0.00	0.00	0.00
	8H	11.68	12.03	12.20	12.53	13.11	0.00	0.00	0.00	0.00	0.00