

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: P1059121

Luminaire Tested: S123RDRP-S1165D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059121
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-S1165D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

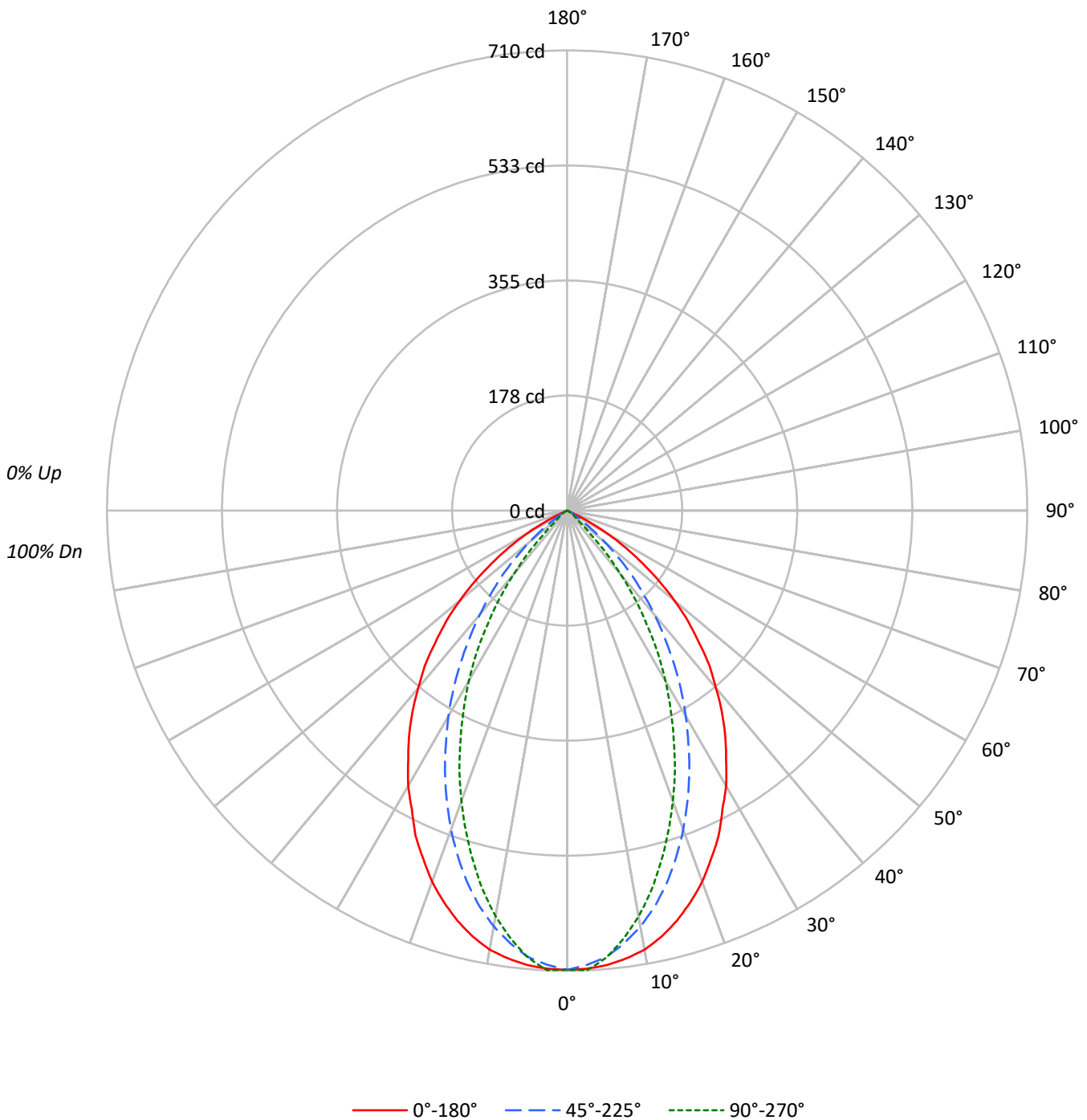
Lumens per Lamp: N/A
Luminaire Lumens: 808.5 lumens
Efficiency: N/A
Efficacy: 19.3 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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	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°	8320	8320	8320
5°	8298	8150	8164
10°	8203	7768	7577
15°	7961	7226	6810
20°	7614	6544	5959
25°	7170	5780	5041
30°	6652	4967	4115
35°	6101	4106	3059
40°	5474	3217	1959
45°	4774	2350	815
50°	3960	1396	312
55°	2919	583	233
60°	1768	214	134
65°	475	128	64
70°	0	38	38
75°	0	0	50
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4774 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.2	8.1
10°-20°	168.3	20.8
20°-30°	209.8	25.9
30°-40°	187.6	23.2
40°-50°	118.4	14.6
50°-60°	49.5	6.1
60°-70°	9.3	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°	443.4	54.8
0°-40°	631.0	78.0
0°-60°	798.9	98.8
0°-90°	808.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	808.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	708	708	708	708	708	
5°	704	703	691	694	693	67
15°	655	639	594	569	560	184
25°	553	509	446	407	389	253
35°	426	364	286	235	213	265
45°	288	224	142	75	49	222
55°	143	98	28	11	11	128
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°	708.5	708.5	708.5	708.5	708.5
2.5°	707.4	708.5	701.7	708.5	709.7
5°	704.0	702.8	691.4	693.7	692.6
7.5°	697.1	693.7	673.2	668.6	666.3
10°	688.0	678.9	651.5	640.1	635.5
12.5°	673.2	660.6	625.3	607.0	600.2
15°	654.9	638.9	594.4	569.3	560.2
17.5°	633.2	610.4	560.2	532.8	519.1
20°	609.3	577.3	523.7	490.6	476.9
22.5°	580.8	545.4	484.9	449.5	434.7
25°	553.4	508.9	446.1	407.3	389.1
27.5°	519.1	472.4	405.0	365.1	345.7
30°	490.6	437.0	366.3	321.8	303.5
32.5°	456.4	400.5	326.3	277.3	260.1
35°	425.6	364.0	286.4	235.0	213.4
37.5°	392.5	328.6	246.5	192.8	172.3
40°	357.1	293.2	209.9	150.6	127.8
42.5°	325.2	257.9	173.4	111.8	89.0
45°	287.5	223.6	141.5	75.3	49.1
47.5°	253.3	191.7	107.3	42.2	26.2
50°	216.8	158.6	76.4	21.7	17.1
52.5°	179.1	126.6	50.2	14.8	13.7
55°	142.6	98.1	28.5	11.4	11.4
57.5°	107.3	70.7	14.8	9.1	8.0
60°	75.3	46.8	9.1	6.8	5.7
62.5°	43.4	27.4	6.8	4.6	4.6
65°	17.1	12.6	4.6	2.3	2.3
67.5°	1.1	3.4	2.3	1.1	1.1
70°	0.0	0.0	1.1	1.1	1.1
72.5°	0.0	0.0	1.1	1.1	1.1
75°	0.0	0.0	0.0	0.0	1.1
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	12.55	13.73	12.91	14.04	14.35	0.00	0.00	0.00	0.00	0.00
	3H	12.39	13.42	12.77	13.75	14.12	0.00	0.00	0.00	0.00	0.00
	4H	12.30	13.26	12.71	13.61	14.00	0.00	0.00	0.00	0.00	0.00
	6H	12.21	13.08	12.63	13.46	13.85	0.00	0.00	0.00	0.00	0.00
	8H	12.16	12.98	12.59	13.38	13.78	0.00	0.00	0.00	0.00	0.00
	12H	12.11	12.90	12.54	13.28	13.71	0.00	0.00	0.00	0.00	0.00
4H	2H	12.31	13.26	12.71	13.62	14.00	0.00	0.00	0.00	0.00	0.00
	3H	12.14	12.91	12.56	13.32	13.72	0.00	0.00	0.00	0.00	0.00
	4H	12.04	12.72	12.48	13.14	13.59	0.00	0.00	0.00	0.00	0.00
	6H	11.94	12.53	12.41	12.98	13.45	0.00	0.00	0.00	0.00	0.00
	8H	11.88	12.42	12.35	12.87	13.34	0.00	0.00	0.00	0.00	0.00
	12H	11.82	12.30	12.31	12.78	13.26	0.00	0.00	0.00	0.00	0.00
8H	4H	11.88	12.42	12.35	12.87	13.35	0.00	0.00	0.00	0.00	0.00
	6H	11.76	12.20	12.27	12.70	13.19	0.00	0.00	0.00	0.00	0.00
	8H	11.69	12.09	12.22	12.60	13.10	0.00	0.00	0.00	0.00	0.00
	12H	11.63	11.99	12.15	12.48	13.06	0.00	0.00	0.00	0.00	0.00
12H	4H	11.82	12.30	12.31	12.78	13.26	0.00	0.00	0.00	0.00	0.00
	6H	11.69	12.09	12.22	12.61	13.10	0.00	0.00	0.00	0.00	0.00
	8H	11.63	11.99	12.15	12.48	13.06	0.00	0.00	0.00	0.00	0.00