

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: P1059547

Luminaire Tested: S123RDR-H1165D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059547
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-H1165D935-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, 90 CRI LEDS
Ballast/Driver: -

Summary

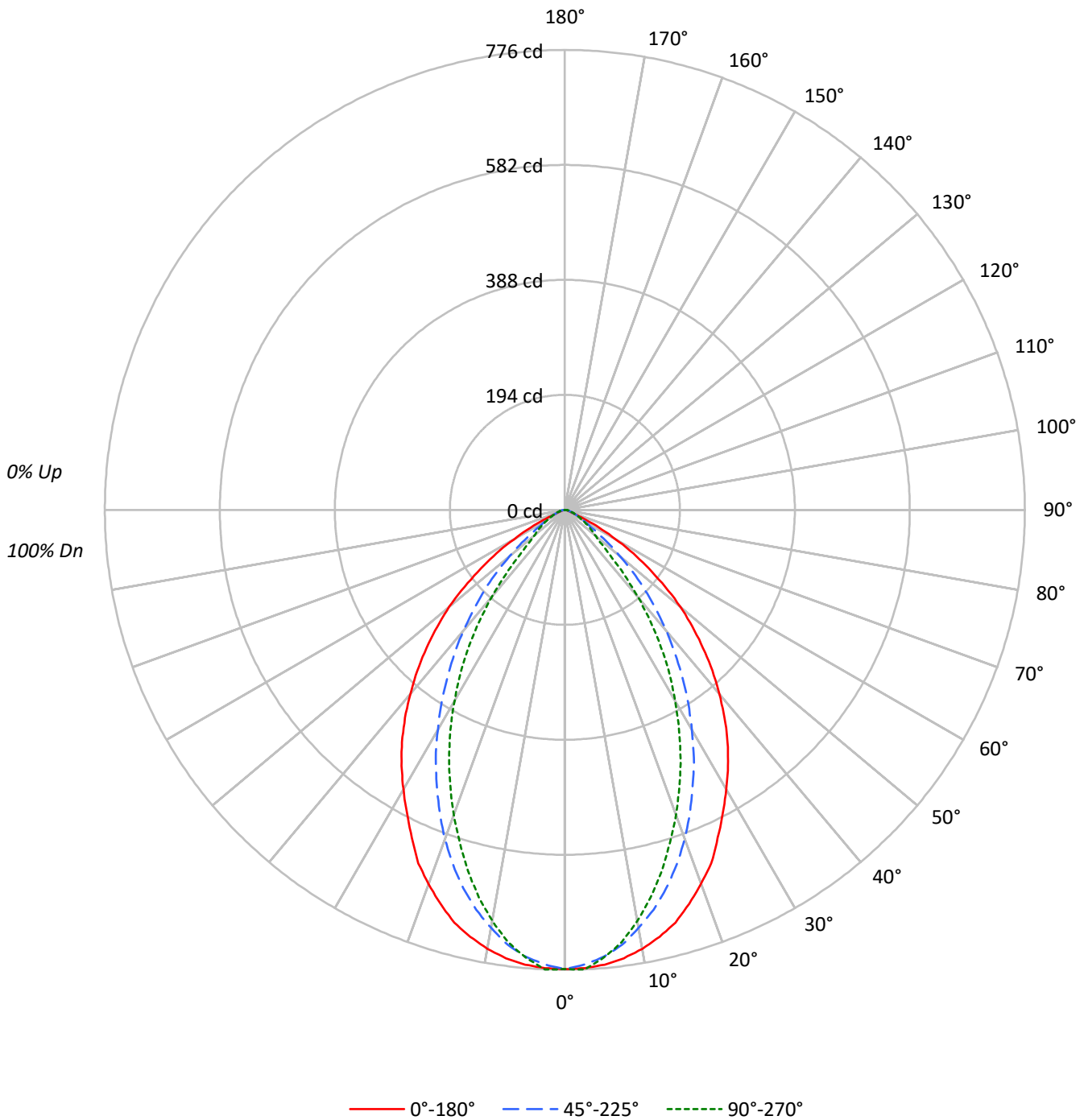
Lumens per Lamp: N/A
Luminaire Lumens: 1000.5 lumens
Efficiency: N/A
Efficacy: 27.4 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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°	9100	9100	9100
5°	9079	8923	8937
10°	8969	8540	8397
15°	8765	8036	7671
20°	8395	7390	6850
25°	7911	6622	5985
30°	7384	5807	5043
35°	6862	4953	4058
40°	6216	4082	2942
45°	5478	3167	1774
50°	4646	2214	1206
55°	3538	1327	1007
60°	2311	845	789
65°	967	633	633
70°	330	453	494
75°	272	327	381
80°	162	243	325
85°	162	162	323

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5478 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.6	7.2
10°-20°	187.3	18.7
20°-30°	240.2	24.0
30°-40°	225.4	22.5
40°-50°	157.2	15.7
50°-60°	81.3	8.1
60°-70°	27.8	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°	499.1	49.9
0°-40°	724.5	72.4
0°-60°	963.1	96.3
0°-90°	1000.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1000.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	770	769	757	761	758	73
15°	721	703	661	639	631	202
25°	611	572	511	476	462	281
35°	479	420	346	301	283	298
45°	330	270	191	132	107	254
55°	173	130	65	50	49	156
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°	775.0	775.0	775.0	775.0	775.0
2.5°	773.8	775.0	767.8	775.0	776.2
5°	770.2	769.0	757.0	760.6	758.2
7.5°	763.0	759.4	740.2	735.4	735.4
10°	752.2	745.0	716.2	707.8	704.2
12.5°	737.8	728.2	691.0	675.4	669.4
15°	721.0	703.0	661.0	639.4	631.0
17.5°	697.0	673.0	627.4	602.2	589.0
20°	671.8	641.8	591.4	561.4	548.2
22.5°	645.4	609.4	551.8	519.5	505.1
25°	610.6	572.2	511.1	476.3	461.9
27.5°	577.0	536.3	471.5	431.9	417.5
30°	544.6	496.7	428.3	389.9	371.9
32.5°	512.3	458.3	387.5	345.5	328.7
35°	478.7	419.9	345.5	301.1	283.1
37.5°	442.7	382.7	305.9	257.9	236.3
40°	405.5	343.1	266.3	212.3	191.9
42.5°	368.3	307.1	226.7	171.6	147.6
45°	329.9	269.9	190.7	132.0	106.8
47.5°	291.5	232.7	156.0	96.0	80.4
50°	254.3	197.9	121.2	70.8	66.0
52.5°	213.5	164.4	91.2	58.8	57.6
55°	172.8	129.6	64.8	50.4	49.2
57.5°	136.8	100.8	46.8	42.0	40.8
60°	98.4	72.0	36.0	34.8	33.6
62.5°	64.8	49.2	28.8	27.6	27.6
65°	34.8	30.0	22.8	21.6	22.8
67.5°	14.4	16.8	16.8	18.0	18.0
70°	9.6	10.8	13.2	14.4	14.4
72.5°	7.2	8.4	9.6	10.8	10.8
75°	6.0	6.0	7.2	8.4	8.4
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	14.01	15.27	14.37	15.58	15.89	7.51	8.77	7.88	9.08	9.40
	3H	13.96	15.07	14.34	15.40	15.76	8.29	9.40	8.67	9.73	10.09
	4H	13.91	14.94	14.31	15.29	15.67	8.49	9.52	8.89	9.87	10.26
	6H	13.84	14.78	14.25	15.15	15.55	8.63	9.58	9.05	9.95	10.34
	8H	13.79	14.69	14.23	15.08	15.48	8.67	9.56	9.10	9.95	10.36
	12H	13.75	14.60	14.18	14.99	15.42	8.69	9.54	9.12	9.92	10.35
4H	2H	13.85	14.88	14.26	15.23	15.62	7.77	8.80	8.17	9.15	9.53
	3H	13.84	14.67	14.25	15.08	15.48	8.68	9.51	9.09	9.92	10.32
	4H	13.79	14.53	14.22	14.95	15.39	8.95	9.69	9.39	10.11	10.56
	6H	13.73	14.37	14.19	14.81	15.28	9.17	9.80	9.63	10.25	10.72
	8H	13.68	14.27	14.15	14.72	15.19	9.23	9.82	9.70	10.27	10.74
	12H	13.63	14.16	14.12	14.64	15.12	9.27	9.79	9.75	10.27	10.75
8H	4H	13.67	14.27	14.14	14.72	15.19	8.93	9.53	9.40	9.98	10.45
	6H	13.61	14.09	14.12	14.59	15.08	9.20	9.69	9.71	10.18	10.67
	8H	13.56	14.00	14.08	14.51	15.01	9.31	9.74	9.83	10.26	10.75
	12H	13.52	13.91	14.04	14.40	14.98	9.38	9.77	9.90	10.26	10.84
12H	4H	13.63	14.15	14.12	14.64	15.11	8.90	9.42	9.38	9.90	10.38
	6H	13.55	13.99	14.08	14.51	15.00	9.16	9.60	9.69	10.12	10.61
	8H	13.52	13.91	14.04	14.40	14.98	9.30	9.69	9.82	10.18	10.76