

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: P1059529

Luminaire Tested: S123RDR-H1165D927-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059529
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-H1165D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

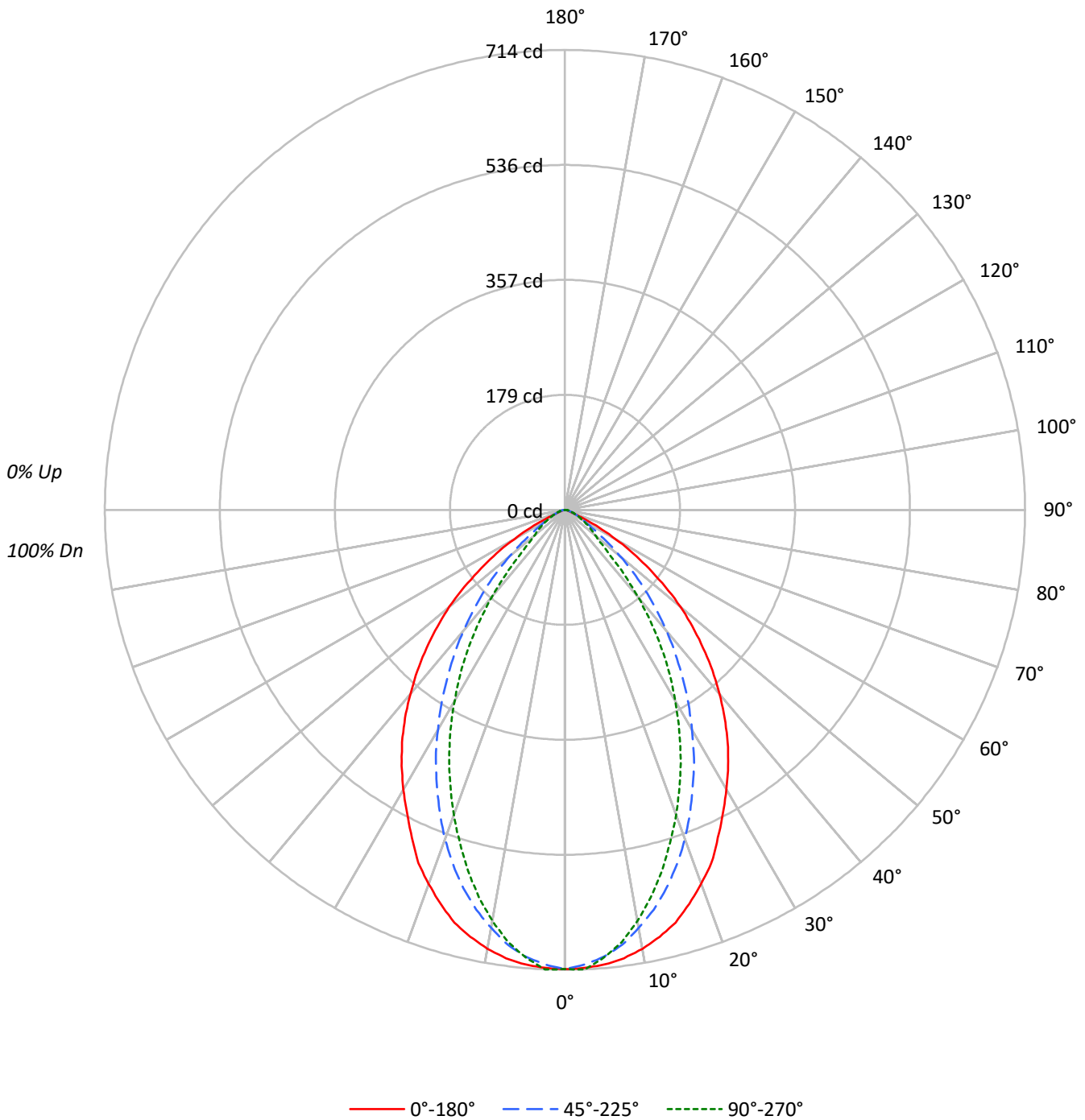
Lumens per Lamp: N/A
Luminaire Lumens: 920.5 lumens
Efficiency: N/A
Efficacy: 25.2 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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				
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	71	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	49	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°	8372	8372	8372
5°	8352	8210	8223
10°	8252	7858	7725
15°	8065	7394	7058
20°	7724	6800	6303
25°	7279	6092	5506
30°	6794	5344	4640
35°	6313	4557	3734
40°	5719	3756	2707
45°	5040	2914	1631
50°	4275	2037	1109
55°	3253	1220	927
60°	2125	777	726
65°	889	583	583
70°	302	415	453
75°	250	299	349
80°	149	223	298
85°	148	148	296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5040 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.8	7.2
10°-20°	172.3	18.7
20°-30°	221.0	24.0
30°-40°	207.4	22.5
40°-50°	144.7	15.7
50°-60°	74.8	8.1
60°-70°	25.6	2.8
70°-80°	7.3	0.8
80°-90°	1.5	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°	459.2	49.9
0°-40°	666.6	72.4
0°-60°	886.1	96.3
0°-90°	920.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	920.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	713	713	713	713	713	
5°	709	708	696	700	698	67
15°	663	647	608	588	581	186
25°	562	526	470	438	425	258
35°	440	386	318	277	260	274
45°	304	248	176	121	98	234
55°	159	119	60	46	45	143
65°	32	28	21	20	21	38
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°	713.0	713.0	713.0	713.0	713.0
2.5°	711.9	713.0	706.4	713.0	714.1
5°	708.6	707.5	696.5	699.8	697.6
7.5°	702.0	698.7	681.0	676.6	676.6
10°	692.1	685.4	659.0	651.2	647.9
12.5°	678.8	670.0	635.8	621.4	615.9
15°	663.4	646.8	608.2	588.3	580.6
17.5°	641.3	619.2	577.3	554.1	542.0
20°	618.1	590.5	544.2	516.6	504.4
22.5°	593.8	560.7	507.7	477.9	464.7
25°	561.8	526.5	470.2	438.2	425.0
27.5°	530.9	493.4	433.8	397.4	384.1
30°	501.1	457.0	394.1	358.7	342.2
32.5°	471.3	421.6	356.5	317.9	302.4
35°	440.4	386.3	317.9	277.0	260.5
37.5°	407.3	352.1	281.5	237.3	217.4
40°	373.1	315.7	245.0	195.4	176.6
42.5°	338.9	282.6	208.6	157.8	135.8
45°	303.5	248.4	175.5	121.4	98.2
47.5°	268.2	214.1	143.5	88.3	74.0
50°	234.0	182.1	111.5	65.1	60.7
52.5°	196.5	151.2	83.9	54.1	53.0
55°	158.9	119.2	59.6	46.4	45.3
57.5°	125.8	92.7	43.0	38.6	37.5
60°	90.5	66.2	33.1	32.0	30.9
62.5°	59.6	45.3	26.5	25.4	25.4
65°	32.0	27.6	21.0	19.9	21.0
67.5°	13.2	15.5	15.5	16.6	16.6
70°	8.8	9.9	12.1	13.2	13.2
72.5°	6.6	7.7	8.8	9.9	9.9
75°	5.5	5.5	6.6	7.7	7.7
77.5°	3.3	4.4	4.4	5.5	6.6
80°	2.2	3.3	3.3	4.4	4.4
82.5°	1.1	2.2	2.2	3.3	3.3
85°	1.1	1.1	1.1	1.1	2.2
87.5°	0.0	0.0	0.0	0.0	1.1
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	13.71	14.97	14.08	15.29	15.60	7.22	8.48	7.58	8.79	9.10
	3H	13.67	14.78	14.05	15.11	15.47	7.99	9.10	8.37	9.43	9.80
	4H	13.61	14.64	14.02	15.00	15.38	8.19	9.22	8.60	9.57	9.96
	6H	13.54	14.49	13.96	14.86	15.25	8.34	9.28	8.75	9.65	10.04
	8H	13.50	14.39	13.93	14.78	15.19	8.37	9.26	8.80	9.65	10.06
	12H	13.46	14.31	13.89	14.69	15.12	8.39	9.24	8.82	9.62	10.05
4H	2H	13.56	14.59	13.96	14.94	15.33	7.47	8.50	7.88	8.86	9.24
	3H	13.55	14.38	13.96	14.79	15.19	8.38	9.22	8.80	9.62	10.03
	4H	13.49	14.24	13.93	14.66	15.10	8.65	9.39	9.09	9.82	10.26
	6H	13.44	14.07	13.90	14.52	14.99	8.87	9.50	9.33	9.95	10.42
	8H	13.38	13.98	13.85	14.43	14.90	8.93	9.52	9.40	9.97	10.44
	12H	13.34	13.86	13.83	14.35	14.82	8.97	9.49	9.45	9.97	10.45
8H	4H	13.38	13.98	13.85	14.42	14.90	8.64	9.23	9.11	9.68	10.15
	6H	13.32	13.80	13.82	14.30	14.78	8.90	9.39	9.41	9.88	10.37
	8H	13.27	13.70	13.79	14.22	14.71	9.01	9.44	9.53	9.96	10.45
	12H	13.23	13.61	13.75	14.11	14.68	9.08	9.47	9.60	9.96	10.54
12H	4H	13.33	13.86	13.82	14.34	14.82	8.60	9.12	9.09	9.61	10.08
	6H	13.26	13.70	13.78	14.21	14.71	8.86	9.30	9.39	9.82	10.31
	8H	13.23	13.61	13.75	14.11	14.68	9.00	9.39	9.52	9.88	10.46