

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: P1059151

Luminaire Tested: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059151
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: S123RDRP-S1165D940-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

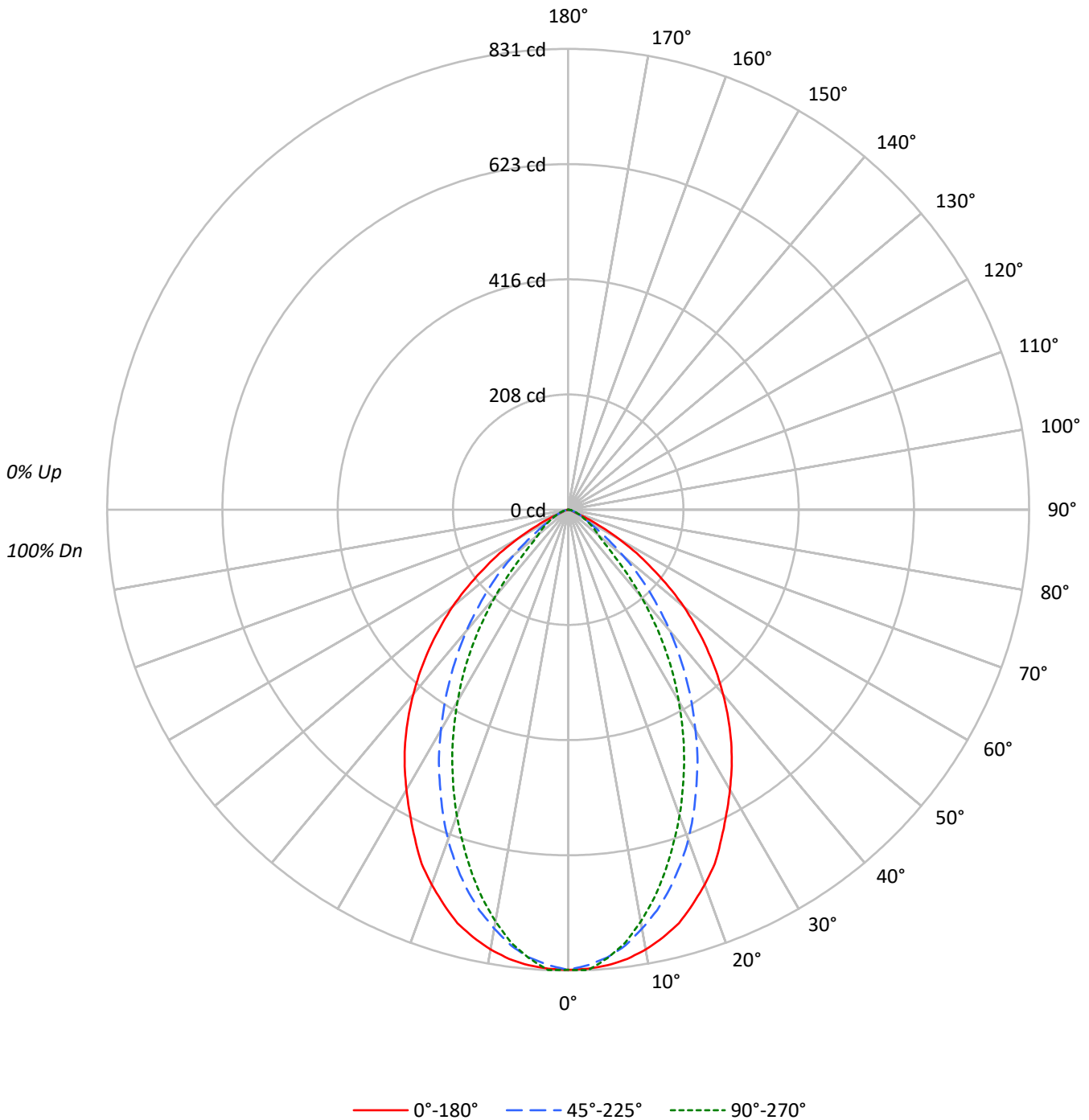
Lumens per Lamp: N/A
Luminaire Lumens: 1071.2 lumens
Efficiency: N/A
Efficacy: 25.6 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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	70	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	48	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°	9743	9743	9743
5°	9720	9554	9569
10°	9602	9143	8990
15°	9384	8603	8213
20°	8988	7912	7335
25°	8471	7090	6407
30°	7906	6217	5399
35°	7347	5302	4345
40°	6654	4370	3150
45°	5865	3391	1898
50°	4974	2369	1290
55°	3787	1421	1079
60°	2473	904	845
65°	1034	678	678
70°	354	484	529
75°	290	349	408
80°	176	264	345
85°	175	175	350

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5865 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	7.2
10°-20°	200.6	18.7
20°-30°	257.2	24.0
30°-40°	241.3	22.5
40°-50°	168.4	15.7
50°-60°	87.1	8.1
60°-70°	29.8	2.8
70°-80°	8.5	0.8
80°-90°	1.8	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°	534.4	49.9
0°-40°	775.7	72.4
0°-60°	1031.1	96.3
0°-90°	1071.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1071.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	830	830	830	830	830	
5°	825	823	810	814	812	78
15°	772	753	708	685	676	216
25°	654	613	547	510	494	301
35°	512	450	370	322	303	319
45°	353	289	204	141	114	272
55°	185	139	69	54	53	167
65°	37	32	24	23	24	44
75°	6	6	8	9	9	6
85°	1	1	1	1	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	829.7	829.7	829.7	829.7	829.7
2.5°	828.5	829.7	822.0	829.7	831.0
5°	824.6	823.3	810.5	814.3	811.8
7.5°	816.9	813.0	792.5	787.4	787.4
10°	805.3	797.6	766.8	757.8	754.0
12.5°	789.9	779.6	739.8	723.1	716.7
15°	771.9	752.7	707.7	684.6	675.6
17.5°	746.2	720.6	671.8	644.8	630.7
20°	719.3	687.2	633.2	601.1	587.0
22.5°	691.0	652.5	590.8	556.2	540.7
25°	653.8	612.7	547.2	509.9	494.5
27.5°	617.8	574.1	504.8	462.4	447.0
30°	583.1	531.8	458.5	417.4	398.2
32.5°	548.4	490.6	414.9	369.9	351.9
35°	512.5	449.5	369.9	322.4	303.1
37.5°	474.0	409.7	327.5	276.2	253.0
40°	434.1	367.3	285.1	227.3	205.5
42.5°	394.3	328.8	242.8	183.7	158.0
45°	353.2	289.0	204.2	141.3	114.3
47.5°	312.1	249.2	167.0	102.8	86.1
50°	272.3	211.9	129.7	75.8	70.6
52.5°	228.6	176.0	97.6	62.9	61.7
55°	185.0	138.7	69.4	53.9	52.7
57.5°	146.4	107.9	50.1	45.0	43.7
60°	105.3	77.1	38.5	37.2	36.0
62.5°	69.4	52.7	30.8	29.5	29.5
65°	37.2	32.1	24.4	23.1	24.4
67.5°	15.4	18.0	18.0	19.3	19.3
70°	10.3	11.6	14.1	15.4	15.4
72.5°	7.7	9.0	10.3	11.6	11.6
75°	6.4	6.4	7.7	9.0	9.0
77.5°	3.9	5.1	5.1	6.4	7.7
80°	2.6	3.9	3.9	5.1	5.1
82.5°	1.3	2.6	2.6	3.9	3.9
85°	1.3	1.3	1.3	1.3	2.6
87.5°	0.0	0.0	0.0	0.0	1.3
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	14.24	15.50	14.61	15.81	16.13	7.75	9.01	8.12	9.33	9.64
	3H	14.20	15.30	14.58	15.64	16.00	8.53	9.64	8.91	9.97	10.33
	4H	14.14	15.17	14.55	15.52	15.91	8.73	9.76	9.13	10.11	10.50
	6H	14.07	15.02	14.49	15.39	15.78	8.87	9.82	9.29	10.19	10.58
	8H	14.03	14.92	14.46	15.31	15.72	8.91	9.80	9.34	10.19	10.60
	12H	13.99	14.84	14.42	15.22	15.65	8.93	9.78	9.36	10.16	10.59
4H	2H	14.09	15.12	14.49	15.47	15.85	8.01	9.04	8.41	9.39	9.78
	3H	14.07	14.91	14.49	15.31	15.72	8.92	9.75	9.33	10.16	10.56
	4H	14.02	14.76	14.46	15.19	15.63	9.19	9.93	9.63	10.35	10.80
	6H	13.97	14.60	14.43	15.05	15.52	9.40	10.04	9.87	10.49	10.96
	8H	13.91	14.51	14.38	14.96	15.43	9.47	10.06	9.94	10.51	10.98
	12H	13.87	14.39	14.36	14.88	15.35	9.51	10.03	9.99	10.51	10.99
8H	4H	13.91	14.50	14.38	14.95	15.42	9.17	9.77	9.64	10.22	10.69
	6H	13.85	14.33	14.35	14.83	15.31	9.44	9.92	9.94	10.42	10.90
	8H	13.80	14.23	14.32	14.75	15.24	9.55	9.98	10.07	10.50	10.99
	12H	13.76	14.14	14.28	14.64	15.21	9.62	10.01	10.14	10.51	11.08
12H	4H	13.86	14.39	14.35	14.87	15.35	9.14	9.66	9.62	10.14	10.62
	6H	13.79	14.22	14.31	14.74	15.24	9.40	9.84	9.93	10.35	10.85
	8H	13.76	14.14	14.28	14.64	15.21	9.54	9.93	10.06	10.42	11.00