

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: P1059165

Luminaire Tested: S123RDRP-S1165D950-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059165
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S1165D950-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

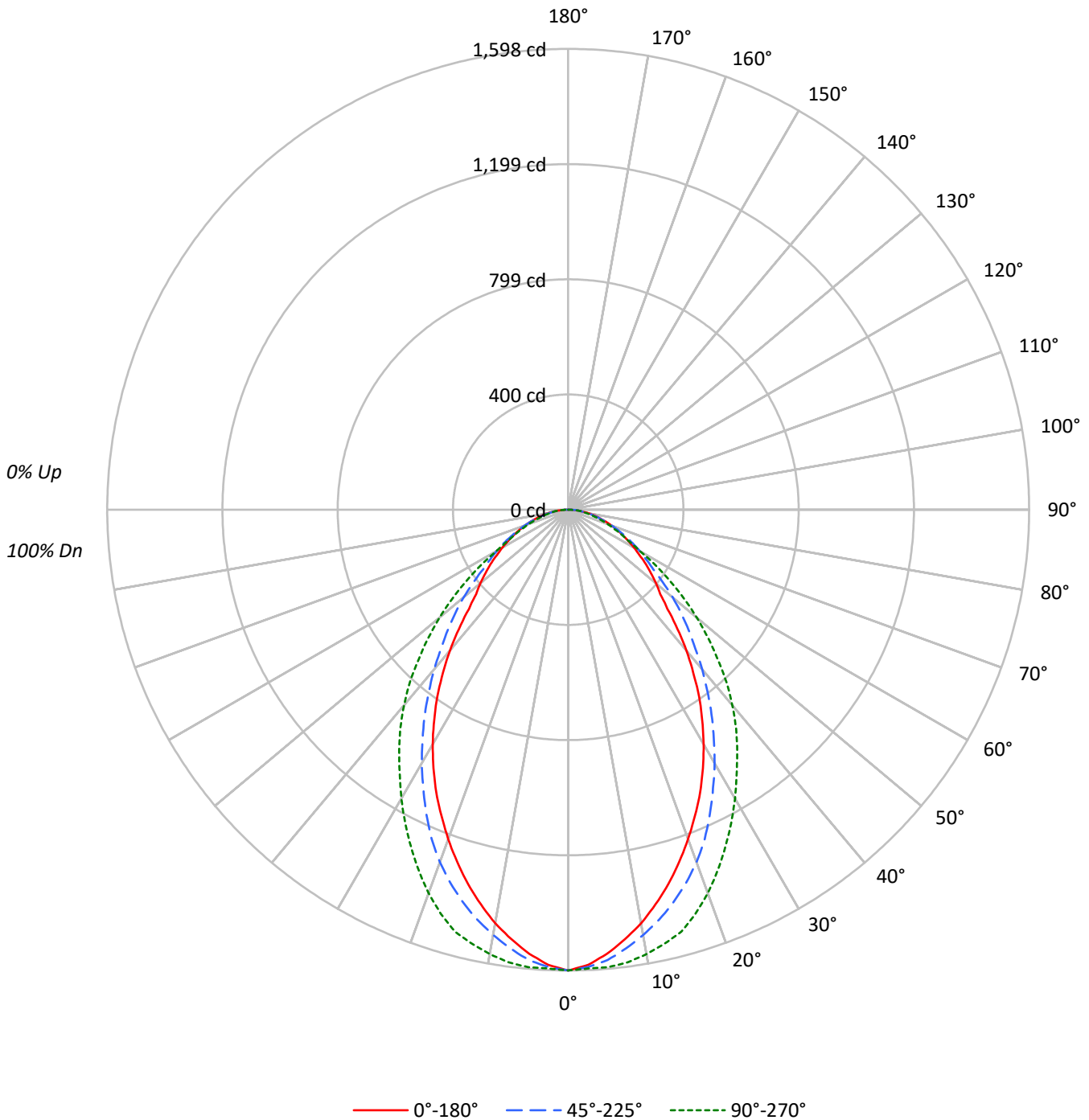
Lumens per Lamp: N/A
Luminaire Lumens: 2807.7 lumens
Efficiency: N/A
Efficacy: 67.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87				87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75				75
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66				66
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58				58
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51				51
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46				46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41				41
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38				38
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34				34
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32				32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18762	18762	18762
5°	18218	18478	18769
10°	17363	17854	18658
15°	16331	17134	18421
20°	15190	16255	17681
25°	14021	15072	16711
30°	12735	13760	15680
35°	11335	12418	14646
40°	9780	11066	13574
45°	8084	9796	12171
50°	7260	8641	10626
55°	6727	7376	8811
60°	6200	6717	6750
65°	5768	6074	5654
70°	5428	5524	4958
75°	5118	4927	4369
80°	4835	4463	4091
85°	4635	4998	4635

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12171 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.0	5.3
10°-20°	398.7	14.2
20°-30°	539.4	19.2
30°-40°	554.3	19.7
40°-50°	465.5	16.6
50°-60°	333.7	11.9
60°-70°	212.5	7.6
70°-80°	116.8	4.2
80°-90°	38.9	1.4
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°	1086.0	38.7
0°-40°	1640.3	58.4
0°-60°	2439.5	86.9
0°-90°	2807.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2807.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1598	1598	1598	1598	1598	
5°	1546	1573	1568	1579	1592	145
15°	1343	1381	1409	1470	1515	376
25°	1082	1123	1163	1227	1290	496
35°	791	833	866	943	1022	492
45°	487	529	590	675	733	384
55°	329	336	360	408	430	294
65°	208	220	219	206	204	207
75°	113	124	109	100	96	120
85°	34	36	37	38	34	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1597.8	1597.8	1597.8	1597.8	1597.8
2.5°	1579.9	1601.9	1586.8	1588.2	1592.3
5°	1545.6	1573.1	1567.6	1578.6	1592.3
7.5°	1502.9	1533.2	1534.6	1560.7	1582.7
10°	1456.2	1487.8	1497.4	1537.3	1564.8
12.5°	1401.2	1435.6	1456.2	1505.7	1541.4
15°	1343.4	1380.6	1409.4	1469.9	1515.3
17.5°	1280.2	1320.1	1357.2	1421.8	1468.6
20°	1215.6	1258.2	1300.8	1361.3	1414.9
22.5°	1148.2	1192.2	1236.2	1295.3	1354.4
25°	1082.2	1123.4	1163.3	1226.6	1289.8
27.5°	1010.7	1053.3	1087.7	1157.8	1223.8
30°	939.2	981.8	1014.8	1087.7	1156.4
32.5°	864.9	908.9	939.2	1014.8	1086.3
35°	790.7	833.3	866.3	943.3	1021.7
37.5°	712.3	759.0	792.0	878.7	955.7
40°	638.0	682.0	721.9	812.7	885.5
42.5°	561.0	606.4	651.8	745.3	812.7
45°	486.8	529.4	589.9	675.2	732.9
47.5°	433.1	460.6	530.8	602.3	657.3
50°	397.4	408.4	473.0	536.3	581.7
52.5°	361.6	369.9	413.9	471.6	506.0
55°	328.6	335.5	360.3	408.4	430.4
57.5°	292.9	299.8	320.4	347.9	360.3
60°	264.0	269.5	286.0	290.1	287.4
62.5°	235.1	243.4	251.6	242.0	237.9
65°	207.6	220.0	218.6	206.3	203.5
67.5°	182.9	195.3	188.4	176.0	171.9
70°	158.1	170.5	160.9	148.5	144.4
72.5°	134.8	148.5	133.4	122.4	119.6
75°	112.8	123.8	108.6	100.4	96.3
77.5°	92.1	100.4	86.6	79.8	77.0
80°	71.5	77.0	66.0	61.9	60.5
82.5°	52.3	55.0	48.1	50.9	49.5
85°	34.4	35.8	37.1	38.5	34.4
87.5°	16.5	23.4	23.4	22.0	17.9
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	17.37	18.83	17.74	19.15	19.46	18.44	19.90	18.81	20.22	20.53
	3H	19.07	20.38	19.45	20.71	21.07	19.53	20.84	19.90	21.16	21.53
	4H	19.72	20.95	20.12	21.30	21.68	19.93	21.15	20.33	21.50	21.88
	6H	20.23	21.36	20.64	21.73	22.12	20.24	21.37	20.65	21.74	22.13
	8H	20.40	21.48	20.83	21.87	22.27	20.37	21.45	20.80	21.84	22.24
	12H	20.52	21.56	20.96	21.94	22.37	20.49	21.52	20.92	21.91	22.34
4H	2H	17.97	19.20	18.37	19.55	19.93	18.84	20.07	19.24	20.42	20.80
	3H	19.90	20.92	20.31	21.32	21.72	20.16	21.18	20.57	21.58	21.98
	4H	20.71	21.63	21.15	22.05	22.48	20.68	21.60	21.11	22.01	22.45
	6H	21.36	22.16	21.82	22.60	23.06	21.11	21.91	21.57	22.35	22.82
	8H	21.58	22.33	22.05	22.77	23.24	21.30	22.05	21.77	22.49	22.96
	12H	21.76	22.42	22.24	22.90	23.37	21.49	22.15	21.97	22.63	23.10
8H	4H	20.95	21.69	21.41	22.14	22.61	20.93	21.67	21.39	22.12	22.58
	6H	21.74	22.35	22.24	22.84	23.32	21.48	22.09	21.97	22.58	23.06
	8H	22.05	22.60	22.57	23.11	23.60	21.75	22.30	22.27	22.82	23.30
	12H	22.32	22.81	22.83	23.30	23.87	22.04	22.53	22.56	23.03	23.59
12H	4H	20.96	21.63	21.44	22.11	22.58	20.95	21.62	21.44	22.10	22.57
	6H	21.77	22.33	22.29	22.84	23.32	21.53	22.08	22.04	22.59	23.08
	8H	22.15	22.64	22.66	23.13	23.70	21.87	22.36	22.38	22.85	23.42