

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: P1059112

Luminaire Tested: S123RDRP-S1165D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059112
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-S1165D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

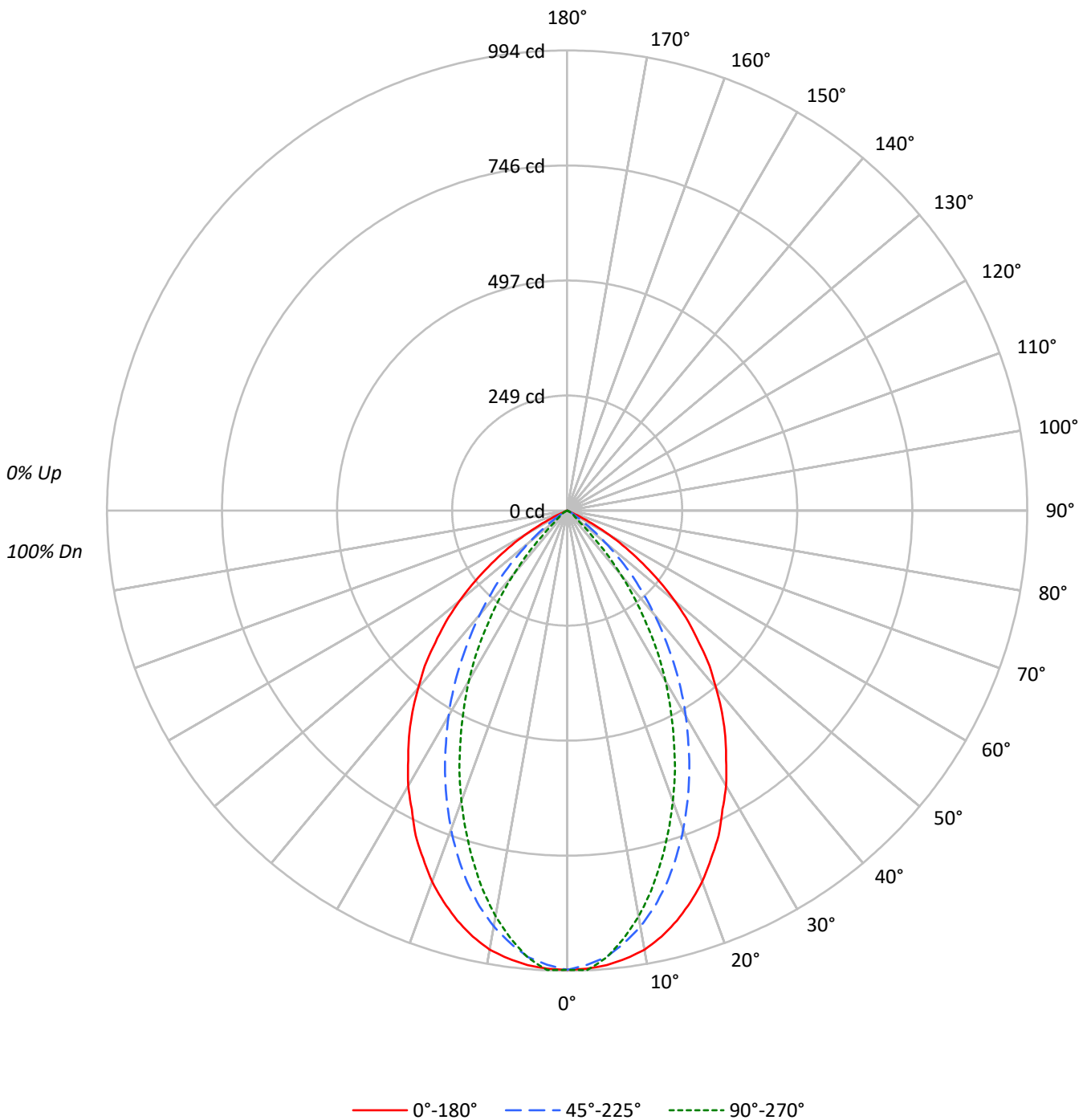
Lumens per Lamp: N/A
Luminaire Lumens: 1131.9 lumens
Efficiency: N/A
Efficacy: 27.1 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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°	11647	11647	11647
5°	11616	11410	11429
10°	11485	10875	10608
15°	11145	10117	9534
20°	10659	9162	8344
25°	10037	8091	7057
30°	9312	6952	5761
35°	8541	5747	4282
40°	7664	4505	2742
45°	6684	3290	1141
50°	5544	1955	438
55°	4088	817	328
60°	2475	301	188
65°	667	178	89
70°	0	55	55
75°	0	0	73
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6684 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.3	8.1
10°-20°	235.7	20.8
20°-30°	293.7	25.9
30°-40°	262.6	23.2
40°-50°	165.7	14.6
50°-60°	69.4	6.1
60°-70°	13.1	1.2
70°-80°	0.4	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°	620.7	54.8
0°-40°	883.3	78.0
0°-60°	1118.4	98.8
0°-90°	1131.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1131.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	992	992	992	992	992	
5°	986	984	968	971	970	93
15°	917	894	832	797	784	257
25°	775	712	624	570	545	355
35°	596	510	401	329	299	371
45°	402	313	198	105	69	310
55°	200	137	40	16	16	179
65°	24	18	6	3	3	34
75°	0	0	0	0	2	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°	991.9	991.9	991.9	991.9	991.9
2.5°	990.3	991.9	982.3	991.9	993.5
5°	985.5	983.9	968.0	971.1	969.6
7.5°	975.9	971.1	942.4	936.0	932.8
10°	963.2	950.4	912.1	896.1	889.7
12.5°	942.4	924.8	875.3	849.8	840.2
15°	916.8	894.5	832.2	797.0	784.3
17.5°	886.5	854.5	784.3	745.9	726.8
20°	853.0	808.2	733.2	686.8	667.7
22.5°	813.0	763.5	678.8	629.3	608.6
25°	774.7	712.4	624.5	570.2	544.7
27.5°	726.8	661.3	567.0	511.1	484.0
30°	686.8	611.8	512.7	450.4	424.9
32.5°	638.9	560.6	456.8	388.1	364.2
35°	595.8	509.5	400.9	329.0	298.7
37.5°	549.5	460.0	345.0	269.9	241.2
40°	500.0	410.5	293.9	210.8	178.9
42.5°	455.2	361.0	242.8	156.5	124.6
45°	402.5	313.1	198.1	105.4	68.7
47.5°	354.6	268.3	150.1	59.1	36.7
50°	303.5	222.0	107.0	30.3	24.0
52.5°	250.8	177.3	70.3	20.8	19.2
55°	199.7	137.4	39.9	16.0	16.0
57.5°	150.1	99.0	20.8	12.8	11.2
60°	105.4	65.5	12.8	9.6	8.0
62.5°	60.7	38.3	9.6	6.4	6.4
65°	24.0	17.6	6.4	3.2	3.2
67.5°	1.6	4.8	3.2	1.6	1.6
70°	0.0	0.0	1.6	1.6	1.6
72.5°	0.0	0.0	1.6	1.6	1.6
75°	0.0	0.0	0.0	0.0	1.6
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	13.72	14.90	14.08	15.21	15.52	0.00	0.00	0.00	0.25	0.57
	3H	13.56	14.59	13.94	14.92	15.29	0.00	0.00	0.00	0.08	0.44
	4H	13.47	14.43	13.88	14.78	15.17	0.00	0.00	0.00	0.01	0.39
	6H	13.38	14.25	13.80	14.63	15.02	0.00	0.00	0.00	0.00	0.25
	8H	13.33	14.15	13.76	14.54	14.95	0.00	0.00	0.00	0.00	0.18
	12H	13.28	14.06	13.71	14.45	14.88	0.00	0.00	0.00	0.00	0.11
4H	2H	13.48	14.43	13.88	14.78	15.17	0.00	0.00	0.00	0.28	0.67
	3H	13.31	14.08	13.73	14.49	14.89	0.00	0.00	0.00	0.14	0.54
	4H	13.21	13.89	13.64	14.31	14.76	0.00	0.00	0.00	0.03	0.47
	6H	13.11	13.70	13.58	14.14	14.62	0.00	0.00	0.00	0.00	0.33
	8H	13.05	13.59	13.52	14.04	14.51	0.00	0.00	0.00	0.00	0.23
	12H	12.99	13.47	13.48	13.95	14.43	0.00	0.00	0.00	0.00	0.14
8H	4H	13.05	13.59	13.52	14.04	14.51	0.00	0.00	0.00	0.00	0.23
	6H	12.93	13.37	13.44	13.87	14.35	0.00	0.00	0.00	0.00	0.07
	8H	12.86	13.25	13.39	13.77	14.27	0.00	0.00	0.00	0.00	0.00
	12H	12.80	13.15	13.32	13.65	14.23	0.00	0.00	0.00	0.00	0.00
12H	4H	12.99	13.47	13.48	13.95	14.43	0.00	0.00	0.00	0.00	0.15
	6H	12.86	13.25	13.39	13.77	14.27	0.00	0.00	0.00	0.00	0.00
	8H	12.80	13.15	13.32	13.65	14.23	0.00	0.00	0.00	0.00	0.00