

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: P1056481

Luminaire Tested: S125R3DR-S850D930-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056481
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S850D930-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

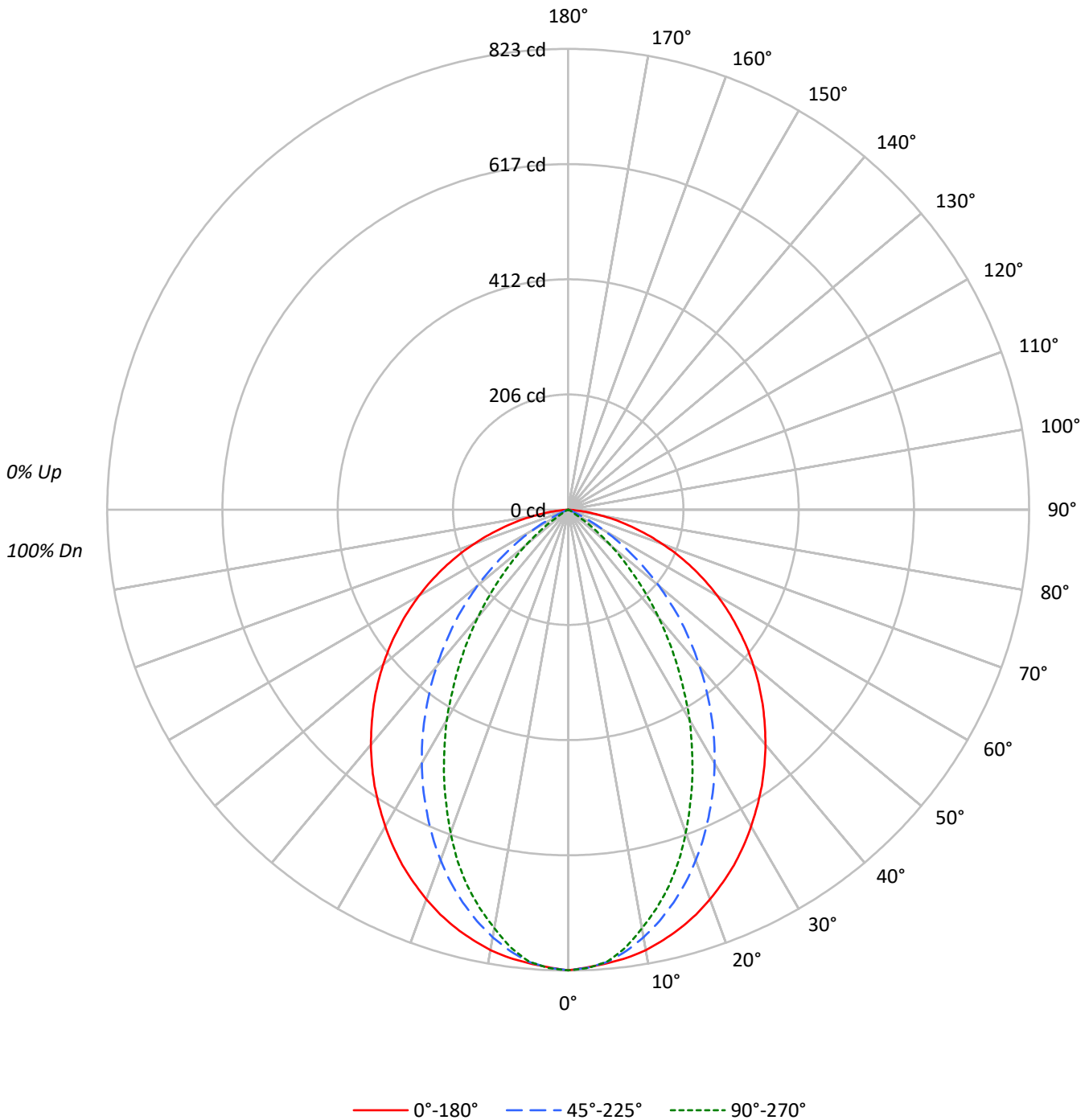
Lumens per Lamp: N/A
Luminaire Lumens: 1333.4 lumens
Efficiency: N/A
Efficacy: 50.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78				78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69				69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61				61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55				55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49				49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45				45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41				41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34				34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5815	5815	5815
5°	5769	5751	5745
10°	5736	5566	5448
15°	5662	5316	5090
20°	5569	5011	4618
25°	5462	4655	4096
30°	5331	4266	3540
35°	5200	3834	2927
40°	5056	3371	2317
45°	4907	2877	1680
50°	4743	2323	1085
55°	4561	1698	482
60°	4346	1049	139
65°	4078	381	82
70°	3692	134	33
75°	3207	44	22
80°	2455	33	0
85°	1127	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4907 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.4	5.7
10°-20°	205.2	15.4
20°-30°	277.6	20.8
30°-40°	285.1	21.4
40°-50°	236.2	17.7
50°-60°	151.7	11.4
60°-70°	73.3	5.5
70°-80°	24.8	1.9
80°-90°	3.2	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°	559.1	41.9
0°-40°	844.3	63.3
0°-60°	1232.1	92.4
0°-90°	1333.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1333.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	813	819	810	806	810	77
15°	774	764	726	701	696	218
25°	700	666	597	543	525	322
35°	602	545	444	367	339	377
45°	491	410	288	199	168	378
55°	370	272	138	60	39	331
65°	244	134	23	6	5	241
75°	117	25	2	1	1	125
85°	14	0	0	0	0	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	822.6	822.6	822.6	822.6	822.6
2.5°	817.7	824.3	818.6	817.7	819.4
5°	812.9	819.4	810.4	805.5	809.6
7.5°	807.1	810.4	794.9	786.8	788.4
10°	799.0	798.2	775.4	761.5	759.0
12.5°	786.8	782.7	752.5	733.0	728.9
15°	773.7	763.9	726.4	701.2	695.5
17.5°	758.2	742.7	697.9	665.3	657.1
20°	740.3	719.1	666.1	626.2	613.9
22.5°	720.7	693.8	632.7	585.4	569.1
25°	700.3	666.1	596.8	543.0	525.1
27.5°	677.5	637.6	560.9	499.8	477.8
30°	653.1	607.4	522.6	455.8	433.7
32.5°	627.8	577.2	484.3	411.7	384.8
35°	602.5	544.6	444.3	366.9	339.2
37.5°	575.6	512.0	405.2	324.5	294.3
40°	547.9	478.6	365.3	280.5	251.1
42.5°	519.3	444.3	325.3	238.9	208.7
45°	490.8	410.1	287.8	198.9	168.0
47.5°	461.5	375.0	248.7	159.8	132.9
50°	431.3	340.8	211.2	124.7	98.7
52.5°	401.1	305.7	172.8	90.5	66.9
55°	370.1	271.5	137.8	60.3	39.1
57.5°	339.2	236.4	105.2	33.4	14.7
60°	307.4	203.0	74.2	11.4	9.8
62.5°	276.4	167.1	46.5	9.0	7.3
65°	243.8	134.5	22.8	6.5	4.9
67.5°	212.0	103.5	9.8	4.1	2.4
70°	178.6	75.0	6.5	2.4	1.6
72.5°	147.6	48.1	4.1	1.6	0.8
75°	117.4	25.3	1.6	0.8	0.8
77.5°	88.1	10.6	0.8	0.8	0.8
80°	60.3	4.9	0.8	0.8	0.0
82.5°	35.9	1.6	0.8	0.8	0.0
85°	13.9	0.0	0.0	0.0	0.0
87.5°	0.8	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	17.18	18.57	17.55	18.88	19.20	2.05	3.43	2.41	3.74	4.06
	3H	18.73	19.96	19.11	20.29	20.66	1.97	3.19	2.35	3.52	3.89
	4H	19.26	20.40	19.66	20.75	21.13	1.90	3.04	2.30	3.39	3.78
	6H	19.60	20.65	20.01	21.02	21.41	1.83	2.88	2.24	3.25	3.64
	8H	19.68	20.68	20.11	21.07	21.47	1.79	2.79	2.22	3.18	3.58
	12H	19.70	20.65	20.13	21.03	21.46	1.75	2.70	2.18	3.08	3.51
4H	2H	16.99	18.13	17.39	18.48	18.86	2.91	4.05	3.31	4.40	4.79
	3H	18.60	19.54	19.01	19.94	20.34	2.86	3.79	3.27	4.19	4.60
	4H	19.12	19.96	19.56	20.38	20.82	2.78	3.61	3.21	4.03	4.47
	6H	19.50	20.22	19.96	20.66	21.13	2.71	3.43	3.18	3.88	4.34
	8H	19.60	20.27	20.07	20.72	21.19	2.66	3.33	3.13	3.78	4.25
	12H	19.63	20.23	20.12	20.71	21.18	2.62	3.21	3.11	3.70	4.17
8H	4H	19.00	19.67	19.47	20.11	20.58	3.80	4.47	4.27	4.92	5.39
	6H	19.35	19.90	19.85	20.40	20.88	3.72	4.27	4.22	4.76	5.24
	8H	19.45	19.94	19.97	20.45	20.95	3.67	4.16	4.19	4.67	5.16
	12H	19.49	19.93	20.00	20.42	20.99	3.63	4.06	4.14	4.55	5.12
12H	4H	18.95	19.55	19.44	20.03	20.50	3.88	4.47	4.37	4.96	5.43
	6H	19.29	19.79	19.81	20.30	20.79	3.78	4.28	4.30	4.79	5.28
	8H	19.41	19.84	19.92	20.34	20.90	3.75	4.18	4.26	4.68	5.25