

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: P1056492

Luminaire Tested: S125R3DR-S850D950-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056492
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S850D950-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

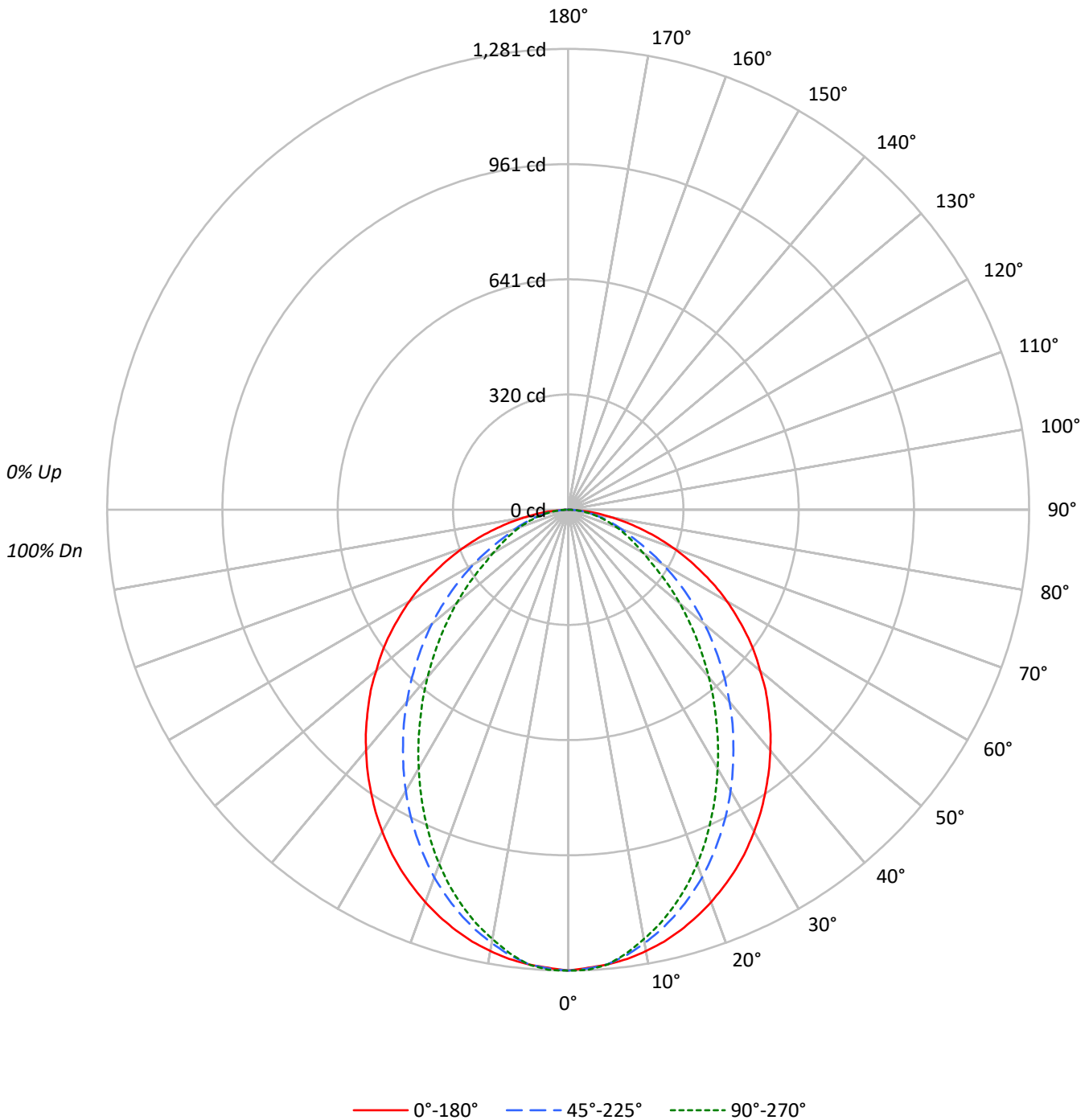
Lumens per Lamp: N/A
Luminaire Lumens: 2715.5 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9057	9057	9057
5°	9004	8997	9004
10°	8944	8779	8697
15°	8853	8511	8337
20°	8734	8182	7887
25°	8602	7791	7352
30°	8434	7367	6783
35°	8249	6908	6191
40°	8065	6436	5608
45°	7869	5942	5027
50°	7659	5435	4449
55°	7466	4879	3869
60°	7202	4290	3399
65°	6847	3638	3160
70°	6428	3253	2958
75°	5810	2996	2789
80°	5048	2719	2601
85°	3950	2401	2401

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7869 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.9	4.4
10°-20°	329.2	12.1
20°-30°	465.0	17.1
30°-40°	511.9	18.8
40°-50°	477.5	17.6
50°-60°	381.1	14.0
60°-70°	256.5	9.4
70°-80°	136.6	5.0
80°-90°	38.0	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°	914.0	33.7
0°-40°	1425.8	52.5
0°-60°	2284.4	84.1
0°-90°	2715.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2715.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1281	1281	1281	1281	1281	
5°	1269	1279	1268	1264	1269	120
15°	1210	1203	1163	1143	1139	341
25°	1103	1069	999	955	943	508
35°	956	900	800	737	717	598
45°	787	713	594	522	503	608
55°	606	514	396	333	314	541
65°	409	320	218	193	189	406
75°	213	141	110	103	102	227
85°	49	33	30	30	30	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1281.2	1281.2	1281.2	1281.2	1281.2
2.5°	1274.5	1285.0	1276.5	1278.4	1280.3
5°	1268.8	1279.3	1267.9	1264.1	1268.8
7.5°	1259.3	1267.9	1248.8	1240.2	1244.0
10°	1245.9	1251.6	1223.0	1211.6	1211.6
12.5°	1229.7	1229.7	1195.4	1179.1	1179.1
15°	1209.7	1203.0	1162.9	1142.9	1139.1
17.5°	1186.8	1174.4	1126.7	1100.9	1096.1
20°	1161.0	1141.0	1087.6	1054.2	1048.4
22.5°	1132.4	1106.6	1044.6	1003.6	996.9
25°	1102.8	1069.4	998.8	955.0	942.6
27.5°	1069.4	1029.4	952.1	902.5	887.2
30°	1033.2	987.4	902.5	847.2	830.9
32.5°	996.0	944.5	851.9	792.8	774.6
35°	955.9	899.6	800.4	737.4	717.4
37.5°	915.8	854.8	749.8	684.0	663.0
40°	873.9	807.1	697.4	629.6	607.7
42.5°	831.9	760.3	645.9	577.2	554.3
45°	787.1	712.6	594.3	521.8	502.8
47.5°	744.1	664.0	543.8	473.2	452.2
50°	696.4	613.4	494.2	423.6	404.5
52.5°	652.5	563.8	444.6	378.7	358.7
55°	605.8	514.2	395.9	332.9	313.9
57.5°	557.1	464.6	349.2	290.0	271.9
60°	509.4	415.0	303.4	249.0	240.4
62.5°	460.8	368.2	260.4	218.5	212.7
65°	409.3	319.6	217.5	192.7	188.9
67.5°	360.6	272.8	183.2	168.9	165.0
70°	311.0	226.1	157.4	145.0	143.1
72.5°	262.4	181.3	132.6	124.0	122.1
75°	212.7	141.2	109.7	103.0	102.1
77.5°	167.0	105.9	86.8	84.0	82.0
80°	124.0	79.2	66.8	64.9	63.9
82.5°	84.9	54.4	47.7	47.7	45.8
85°	48.7	33.4	29.6	30.5	29.6
87.5°	18.1	14.3	13.4	14.3	14.3
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	18.94	20.48	19.31	20.80	21.11	15.33	16.87	15.69	17.18	17.49
	3H	20.73	22.11	21.11	22.44	22.80	16.80	18.19	17.18	18.51	18.88
	4H	21.38	22.68	21.78	23.03	23.41	17.39	18.69	17.79	19.04	19.42
	6H	21.86	23.06	22.27	23.43	23.82	17.86	19.06	18.27	19.42	19.81
	8H	22.01	23.16	22.44	23.55	23.95	18.02	19.16	18.44	19.55	19.95
	12H	22.11	23.20	22.54	23.59	24.02	18.13	19.23	18.56	19.61	20.04
4H	2H	19.08	20.38	19.48	20.73	21.10	16.00	17.30	16.40	17.65	18.03
	3H	21.05	22.13	21.46	22.53	22.93	17.68	18.76	18.09	19.16	19.56
	4H	21.79	22.77	22.23	23.18	23.62	18.38	19.36	18.82	19.77	20.21
	6H	22.39	23.24	22.85	23.68	24.14	18.97	19.82	19.43	20.26	20.72
	8H	22.60	23.39	23.06	23.83	24.30	19.18	19.97	19.64	20.41	20.88
	12H	22.74	23.45	23.22	23.93	24.40	19.34	20.05	19.82	20.53	21.00
8H	4H	21.86	22.65	22.32	23.09	23.56	18.75	19.54	19.21	19.98	20.45
	6H	22.52	23.17	23.01	23.66	24.14	19.45	20.11	19.95	20.60	21.07
	8H	22.77	23.36	23.28	23.87	24.36	19.73	20.32	20.25	20.83	21.32
	12H	22.98	23.50	23.49	23.99	24.56	19.98	20.50	20.48	20.99	21.55
12H	4H	21.85	22.56	22.33	23.04	23.51	18.80	19.50	19.28	19.98	20.45
	6H	22.51	23.10	23.02	23.61	24.10	19.52	20.11	20.03	20.62	21.11
	8H	22.81	23.33	23.31	23.82	24.38	19.86	20.39	20.37	20.88	21.44