

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: P1056478

Luminaire Tested: S125R3DR-S850D927-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056478
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-S850D927-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

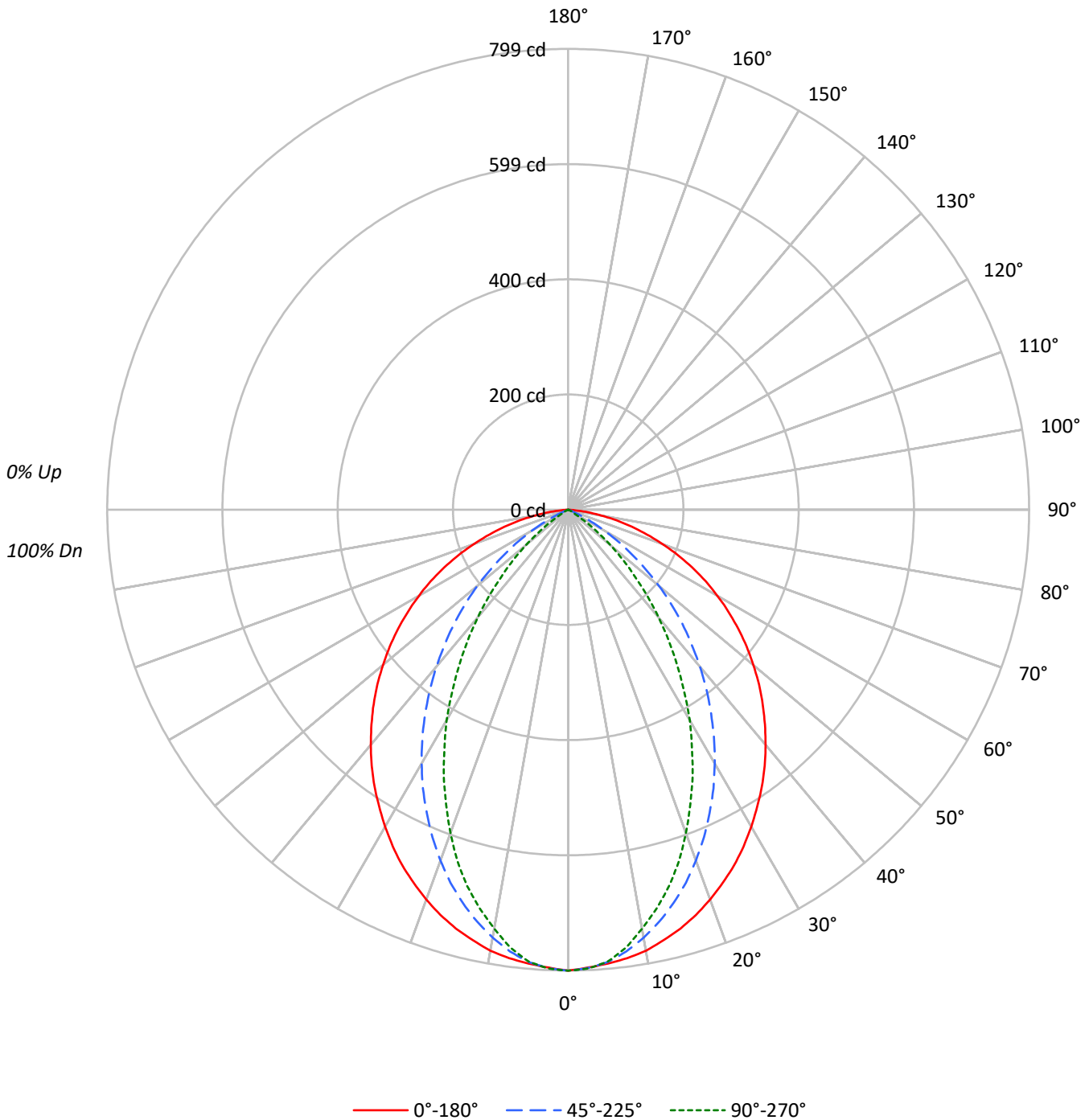
Lumens per Lamp: N/A
Luminaire Lumens: 1295.6 lumens
Efficiency: N/A
Efficacy: 49.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5651	5651	5651
5°	5605	5588	5582
10°	5573	5408	5294
15°	5502	5166	4945
20°	5411	4869	4487
25°	5308	4523	3980
30°	5179	4145	3440
35°	5052	3726	2844
40°	4912	3275	2252
45°	4768	2795	1632
50°	4609	2257	1055
55°	4433	1650	468
60°	4223	1019	134
65°	3963	371	80
70°	3586	130	33
75°	3117	44	22
80°	2386	33	0
85°	1095	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4768 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	5.7
10°-20°	199.3	15.4
20°-30°	269.7	20.8
30°-40°	277.0	21.4
40°-50°	229.5	17.7
50°-60°	147.4	11.4
60°-70°	71.2	5.5
70°-80°	24.1	1.9
80°-90°	3.1	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°	543.3	41.9
0°-40°	820.3	63.3
0°-60°	1197.2	92.4
0°-90°	1295.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1295.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	799	799	799	799	799	
5°	790	796	787	783	787	75
15°	752	742	706	681	676	212
25°	680	647	580	528	510	313
35°	585	529	432	356	330	366
45°	477	398	280	193	163	368
55°	360	264	134	59	38	321
65°	237	131	22	6	5	234
75°	114	25	2	1	1	121
85°	14	0	0	0	0	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	799.3	799.3	799.3	799.3	799.3
2.5°	794.6	800.9	795.4	794.6	796.1
5°	789.8	796.1	787.4	782.7	786.6
7.5°	784.3	787.4	772.4	764.5	766.0
10°	776.3	775.5	753.4	739.9	737.5
12.5°	764.5	760.5	731.2	712.2	708.2
15°	751.8	742.3	705.8	681.3	675.7
17.5°	736.7	721.7	678.1	646.4	638.5
20°	719.3	698.7	647.2	608.4	596.5
22.5°	700.3	674.1	614.7	568.8	552.9
25°	680.5	647.2	579.9	527.6	510.2
27.5°	658.3	619.5	545.0	485.6	464.2
30°	634.5	590.2	507.8	442.8	421.4
32.5°	610.0	560.9	470.6	400.1	373.9
35°	585.4	529.2	431.7	356.5	329.5
37.5°	559.3	497.5	393.7	315.3	286.0
40°	532.3	465.0	354.9	272.5	244.0
42.5°	504.6	431.7	316.1	232.1	202.8
45°	476.9	398.5	279.6	193.3	163.2
47.5°	448.4	364.4	241.6	155.3	129.1
50°	419.1	331.1	205.2	121.2	95.9
52.5°	389.8	297.1	167.9	87.9	65.0
55°	359.7	263.8	133.9	58.6	38.0
57.5°	329.5	229.7	102.2	32.5	14.3
60°	298.7	197.3	72.1	11.1	9.5
62.5°	268.6	162.4	45.2	8.7	7.1
65°	236.9	130.7	22.2	6.3	4.8
67.5°	206.0	100.6	9.5	4.0	2.4
70°	173.5	72.9	6.3	2.4	1.6
72.5°	143.4	46.7	4.0	1.6	0.8
75°	114.1	24.6	1.6	0.8	0.8
77.5°	85.6	10.3	0.8	0.8	0.8
80°	58.6	4.8	0.8	0.8	0.0
82.5°	34.9	1.6	0.8	0.8	0.0
85°	13.5	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	17.08	18.47	17.45	18.78	19.10	1.96	3.34	2.32	3.65	3.97
	3H	18.63	19.86	19.01	20.19	20.56	1.88	3.11	2.26	3.44	3.80
	4H	19.16	20.30	19.56	20.65	21.03	1.81	2.96	2.21	3.31	3.69
	6H	19.50	20.55	19.91	20.92	21.31	1.74	2.79	2.16	3.16	3.56
	8H	19.58	20.58	20.01	20.97	21.37	1.70	2.70	2.13	3.09	3.49
	12H	19.60	20.55	20.03	20.93	21.36	1.66	2.61	2.09	3.00	3.43
4H	2H	16.89	18.03	17.29	18.38	18.76	2.82	3.96	3.22	4.31	4.70
	3H	18.50	19.44	18.91	19.84	20.24	2.77	3.70	3.18	4.11	4.51
	4H	19.02	19.86	19.46	20.28	20.72	2.69	3.53	3.13	3.94	4.39
	6H	19.40	20.12	19.86	20.56	21.03	2.63	3.35	3.09	3.79	4.26
	8H	19.50	20.17	19.97	20.62	21.09	2.58	3.25	3.04	3.69	4.16
	12H	19.53	20.13	20.02	20.61	21.08	2.53	3.13	3.02	3.61	4.08
8H	4H	18.90	19.57	19.37	20.01	20.48	3.71	4.38	4.18	4.83	5.30
	6H	19.25	19.80	19.75	20.30	20.78	3.63	4.18	4.13	4.67	5.15
	8H	19.35	19.84	19.87	20.35	20.85	3.58	4.07	4.10	4.58	5.08
	12H	19.39	19.83	19.90	20.32	20.89	3.54	3.97	4.05	4.47	5.04
12H	4H	18.85	19.45	19.34	19.93	20.40	3.79	4.38	4.28	4.87	5.34
	6H	19.19	19.69	19.71	20.20	20.69	3.69	4.19	4.21	4.70	5.19
	8H	19.31	19.74	19.82	20.24	20.81	3.66	4.10	4.17	4.59	5.16