

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: P1056490

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056490
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-S850D950-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

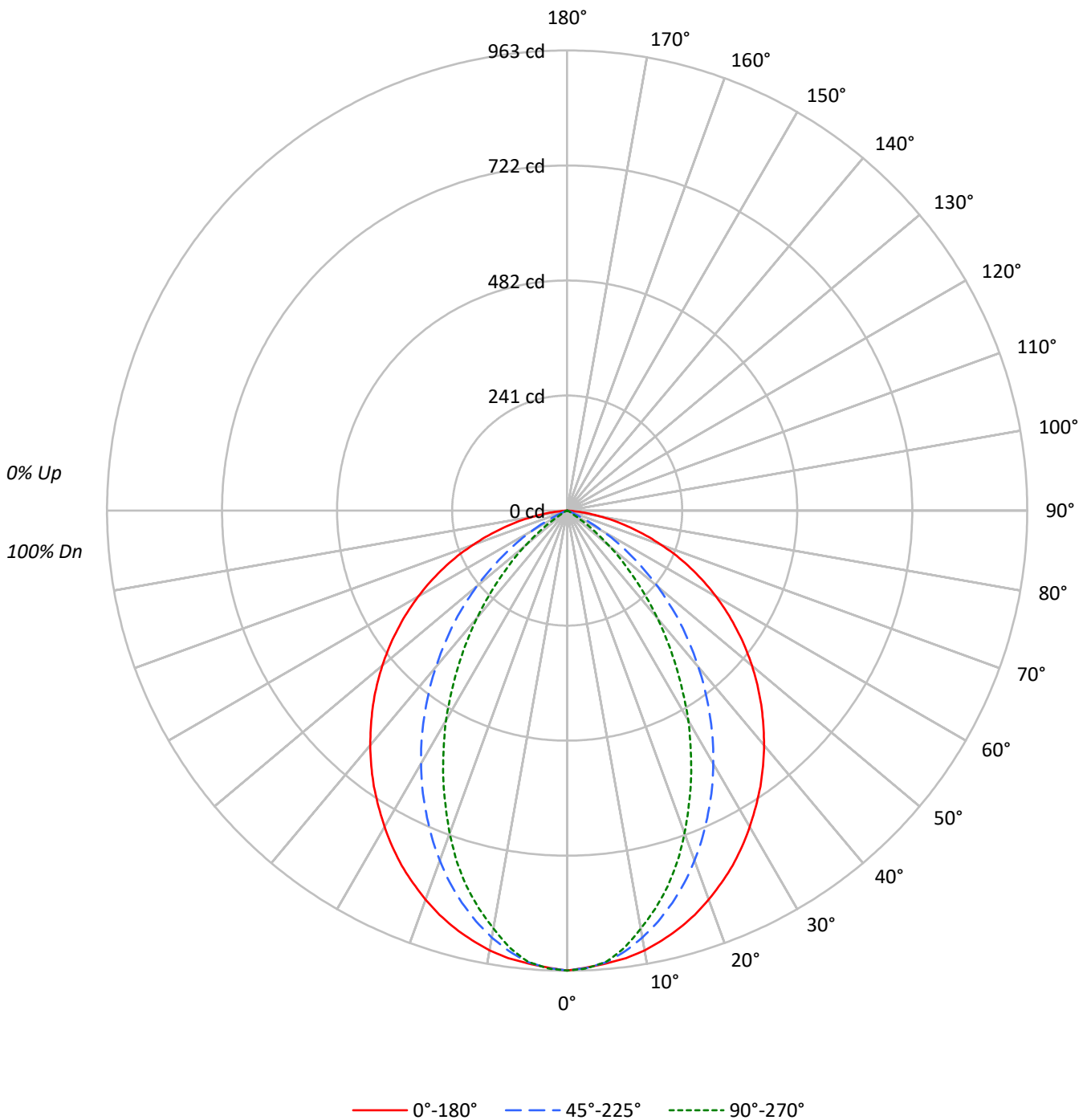
Lumens per Lamp: N/A
Luminaire Lumens: 1560.2 lumens
Efficiency: N/A
Efficacy: 59.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (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	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°	6805	6805	6805
5°	6749	6729	6722
10°	6711	6513	6376
15°	6626	6221	5956
20°	6516	5863	5405
25°	6392	5447	4792
30°	6238	4992	4143
35°	6084	4487	3425
40°	5916	3944	2711
45°	5742	3367	1965
50°	5551	2718	1269
55°	5338	1987	564
60°	5086	1227	161
65°	4771	447	95
70°	4318	157	39
75°	3753	52	27
80°	2874	41	0
85°	1314	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5742 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.4	5.7
10°-20°	240.1	15.4
20°-30°	324.8	20.8
30°-40°	333.6	21.4
40°-50°	276.4	17.7
50°-60°	177.5	11.4
60°-70°	85.7	5.5
70°-80°	29.0	1.9
80°-90°	3.7	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°	654.3	41.9
0°-40°	987.9	63.3
0°-60°	1441.8	92.4
0°-90°	1560.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1560.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	963	963	963	963	963	
5°	951	959	948	943	947	90
15°	905	894	850	820	814	255
25°	820	779	698	635	614	377
35°	705	637	520	429	397	441
45°	574	480	337	233	196	443
55°	433	318	161	71	46	387
65°	285	157	27	8	6	282
75°	137	30	2	1	1	146
85°	16	0	0	0	0	26
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	962.6	962.6	962.6	962.6	962.6
2.5°	956.9	964.5	957.8	956.9	958.8
5°	951.1	958.8	948.3	942.6	947.3
7.5°	944.5	948.3	930.2	920.6	922.5
10°	934.9	934.0	907.3	891.0	888.2
12.5°	920.6	915.8	880.5	857.6	852.9
15°	905.3	893.9	850.0	820.4	813.8
17.5°	887.2	869.1	816.6	778.5	768.9
20°	866.2	841.4	779.4	732.7	718.4
22.5°	843.3	811.9	740.3	685.0	665.9
25°	819.5	779.4	698.3	635.4	614.4
27.5°	792.8	746.0	656.4	584.8	559.0
30°	764.2	710.7	611.5	533.3	507.5
32.5°	734.6	675.4	566.7	481.8	450.3
35°	705.0	637.3	519.9	429.3	396.9
37.5°	673.5	599.1	474.1	379.7	344.4
40°	641.1	560.0	427.4	328.2	293.8
42.5°	607.7	519.9	380.6	279.5	244.2
45°	574.3	479.9	336.8	232.8	196.5
47.5°	540.0	438.8	291.0	187.0	155.5
50°	504.7	398.8	247.1	146.0	115.4
52.5°	469.4	357.8	202.2	105.9	78.2
55°	433.1	317.7	161.2	70.6	45.8
57.5°	396.9	276.7	123.1	39.1	17.2
60°	359.7	237.5	86.8	13.4	11.4
62.5°	323.4	195.6	54.4	10.5	8.6
65°	285.2	157.4	26.7	7.6	5.7
67.5°	248.0	121.2	11.4	4.8	2.9
70°	208.9	87.8	7.6	2.9	1.9
72.5°	172.7	56.3	4.8	1.9	1.0
75°	137.4	29.6	1.9	1.0	1.0
77.5°	103.0	12.4	1.0	1.0	1.0
80°	70.6	5.7	1.0	1.0	0.0
82.5°	42.0	1.9	1.0	1.0	0.0
85°	16.2	0.0	0.0	0.0	0.0
87.5°	1.0	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	17.73	19.12	18.10	19.43	19.74	2.59	3.98	2.96	4.29	4.61
	3H	19.28	20.51	19.66	20.84	21.20	2.52	3.75	2.90	4.07	4.44
	4H	19.80	20.95	20.21	21.30	21.68	2.45	3.60	2.85	3.95	4.33
	6H	20.14	21.19	20.56	21.56	21.96	2.38	3.43	2.80	3.80	4.20
	8H	20.22	21.22	20.65	21.61	22.02	2.34	3.34	2.77	3.73	4.13
	12H	20.24	21.19	20.67	21.58	22.01	2.30	3.25	2.73	3.64	4.07
4H	2H	17.53	18.68	17.94	19.03	19.41	3.46	4.60	3.86	4.95	5.33
	3H	19.15	20.08	19.56	20.49	20.89	3.41	4.34	3.82	4.75	5.15
	4H	19.67	20.50	20.11	20.92	21.37	3.33	4.17	3.77	4.58	5.03
	6H	20.05	20.76	20.51	21.21	21.68	3.27	3.99	3.73	4.43	4.90
	8H	20.14	20.82	20.61	21.26	21.73	3.22	3.89	3.68	4.33	4.80
	12H	20.18	20.77	20.67	21.26	21.73	3.17	3.77	3.66	4.25	4.72
8H	4H	19.54	20.21	20.01	20.66	21.13	4.35	5.03	4.82	5.47	5.94
	6H	19.90	20.45	20.40	20.94	21.42	4.27	4.82	4.77	5.32	5.80
	8H	19.99	20.49	20.51	21.00	21.49	4.22	4.71	4.74	5.23	5.72
	12H	20.04	20.47	20.55	20.97	21.54	4.18	4.62	4.69	5.11	5.68
12H	4H	19.50	20.09	19.99	20.58	21.05	4.43	5.03	4.92	5.51	5.98
	6H	19.84	20.33	20.36	20.85	21.34	4.34	4.83	4.86	5.34	5.83
	8H	19.95	20.39	20.47	20.88	21.45	4.30	4.74	4.82	5.23	5.80