

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: P1056600

Luminaire Tested: S125R3DR-H610D950-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056600
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-H610D950-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

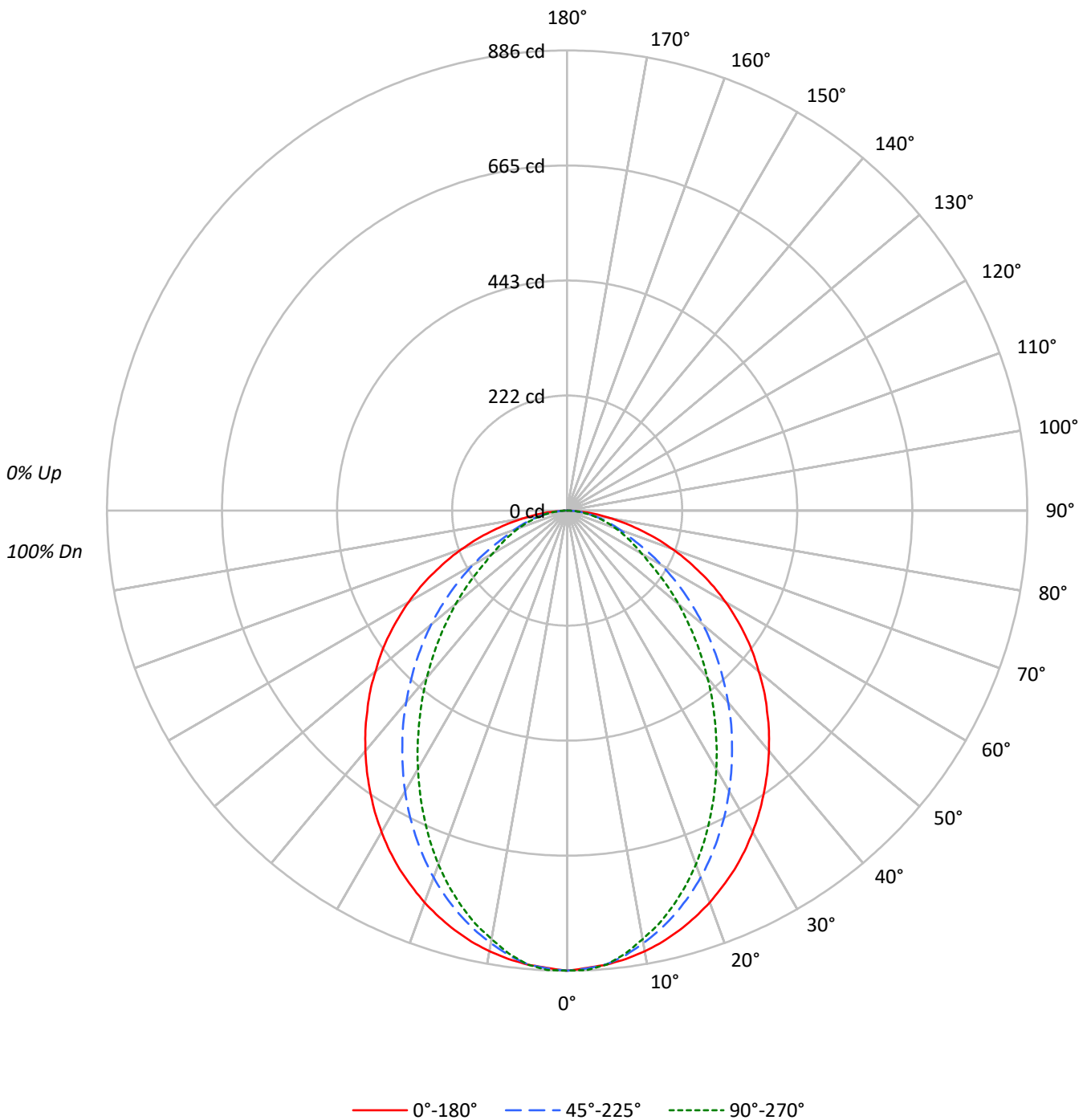
Lumens per Lamp: N/A
Luminaire Lumens: 1877.6 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 17.3
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°	6263	6263	6263
5°	6226	6221	6226
10°	6184	6071	6013
15°	6121	5885	5764
20°	6039	5657	5453
25°	5948	5387	5083
30°	5832	5094	4690
35°	5704	4776	4281
40°	5576	4450	3878
45°	5441	4109	3475
50°	5296	3758	3076
55°	5163	3375	2675
60°	4981	2966	2350
65°	4734	2516	2185
70°	4444	2249	2044
75°	4018	2073	1928
80°	3493	1881	1799
85°	2725	1655	1655

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5441 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.9	4.4
10°-20°	227.6	12.1
20°-30°	321.5	17.1
30°-40°	353.9	18.8
40°-50°	330.1	17.6
50°-60°	263.5	14.0
60°-70°	177.4	9.4
70°-80°	94.5	5.0
80°-90°	26.3	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°	632.0	33.7
0°-40°	985.9	52.5
0°-60°	1579.6	84.1
0°-90°	1877.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1877.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	877	885	877	874	877	83
15°	836	832	804	790	788	236
25°	762	740	691	660	652	351
35°	661	622	553	510	496	414
45°	544	493	411	361	348	420
55°	419	356	274	230	217	374
65°	283	221	150	133	131	281
75°	147	98	76	71	71	157
85°	34	23	20	21	20	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	885.9	885.9	885.9	885.9	885.9
2.5°	881.3	888.5	882.6	883.9	885.2
5°	877.3	884.6	876.7	874.0	877.3
7.5°	870.7	876.7	863.5	857.5	860.2
10°	861.5	865.5	845.7	837.7	837.7
12.5°	850.3	850.3	826.5	815.3	815.3
15°	836.4	831.8	804.1	790.3	787.6
17.5°	820.6	812.0	779.0	761.2	757.9
20°	802.8	788.9	752.0	728.9	724.9
22.5°	783.0	765.2	722.3	693.9	689.3
25°	762.5	739.5	690.6	660.3	651.7
27.5°	739.5	711.8	658.3	624.0	613.5
30°	714.4	682.7	624.0	585.8	574.6
32.5°	688.7	653.0	589.1	548.2	535.6
35°	661.0	622.0	553.4	509.9	496.1
37.5°	633.3	591.0	518.5	473.0	458.5
40°	604.2	558.1	482.2	435.4	420.2
42.5°	575.2	525.7	446.6	399.1	383.3
45°	544.2	492.8	411.0	360.8	347.6
47.5°	514.5	459.1	376.0	327.2	312.7
50°	481.5	424.2	341.7	292.9	279.7
52.5°	451.2	389.8	307.4	261.9	248.0
55°	418.9	355.5	273.8	230.2	217.0
57.5°	385.2	321.2	241.4	200.5	188.0
60°	352.3	286.9	209.8	172.2	166.2
62.5°	318.6	254.6	180.1	151.1	147.1
65°	283.0	221.0	150.4	133.2	130.6
67.5°	249.3	188.7	126.7	116.8	114.1
70°	215.0	156.3	108.8	100.3	98.9
72.5°	181.4	125.3	91.7	85.8	84.4
75°	147.1	97.6	75.9	71.2	70.6
77.5°	115.4	73.2	60.0	58.0	56.7
80°	85.8	54.8	46.2	44.9	44.2
82.5°	58.7	37.6	33.0	33.0	31.7
85°	33.6	23.1	20.4	21.1	20.4
87.5°	12.5	9.9	9.2	9.9	9.9
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	17.66	19.20	18.03	19.51	19.83	14.04	15.58	14.41	15.90	16.21
	3H	19.45	20.83	19.82	21.16	21.52	15.52	16.90	15.90	17.23	17.59
	4H	20.10	21.40	20.50	21.75	22.13	16.11	17.41	16.51	17.76	18.14
	6H	20.58	21.78	20.99	22.14	22.54	16.57	17.77	16.98	18.14	18.53
	8H	20.73	21.88	21.16	22.26	22.67	16.73	17.88	17.16	18.27	18.67
	12H	20.83	21.92	21.26	22.30	22.73	16.85	17.94	17.28	18.33	18.75
4H	2H	17.80	19.10	18.20	19.44	19.82	14.72	16.02	15.12	16.37	16.75
	3H	19.77	20.85	20.18	21.25	21.65	16.40	17.48	16.81	17.88	18.28
	4H	20.51	21.49	20.94	21.90	22.34	17.10	18.07	17.53	18.49	18.93
	6H	21.11	21.95	21.56	22.40	22.86	17.69	18.53	18.14	18.98	19.44
	8H	21.31	22.11	21.78	22.55	23.02	17.90	18.69	18.36	19.13	19.60
	12H	21.46	22.17	21.94	22.65	23.12	18.06	18.77	18.54	19.24	19.71
8H	4H	20.57	21.37	21.04	21.81	22.28	17.47	18.26	17.93	18.70	19.17
	6H	21.23	21.89	21.73	22.38	22.86	18.17	18.82	18.66	19.31	19.79
	8H	21.49	22.08	22.00	22.59	23.07	18.45	19.04	18.96	19.55	20.04
	12H	21.70	22.22	22.21	22.71	23.27	18.69	19.21	19.20	19.71	20.27
12H	4H	20.57	21.28	21.05	21.75	22.23	17.51	18.22	17.99	18.70	19.17
	6H	21.23	21.82	21.74	22.33	22.82	18.24	18.83	18.75	19.34	19.83
	8H	21.52	22.04	22.03	22.54	23.10	18.58	19.10	19.09	19.60	20.16