

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056596

Luminaire Tested: S125R3DR-H610D940-X4F0-XX-UDD-FLL-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1056596
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H610D940-X4F0-XX-UDD-FLL-S
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

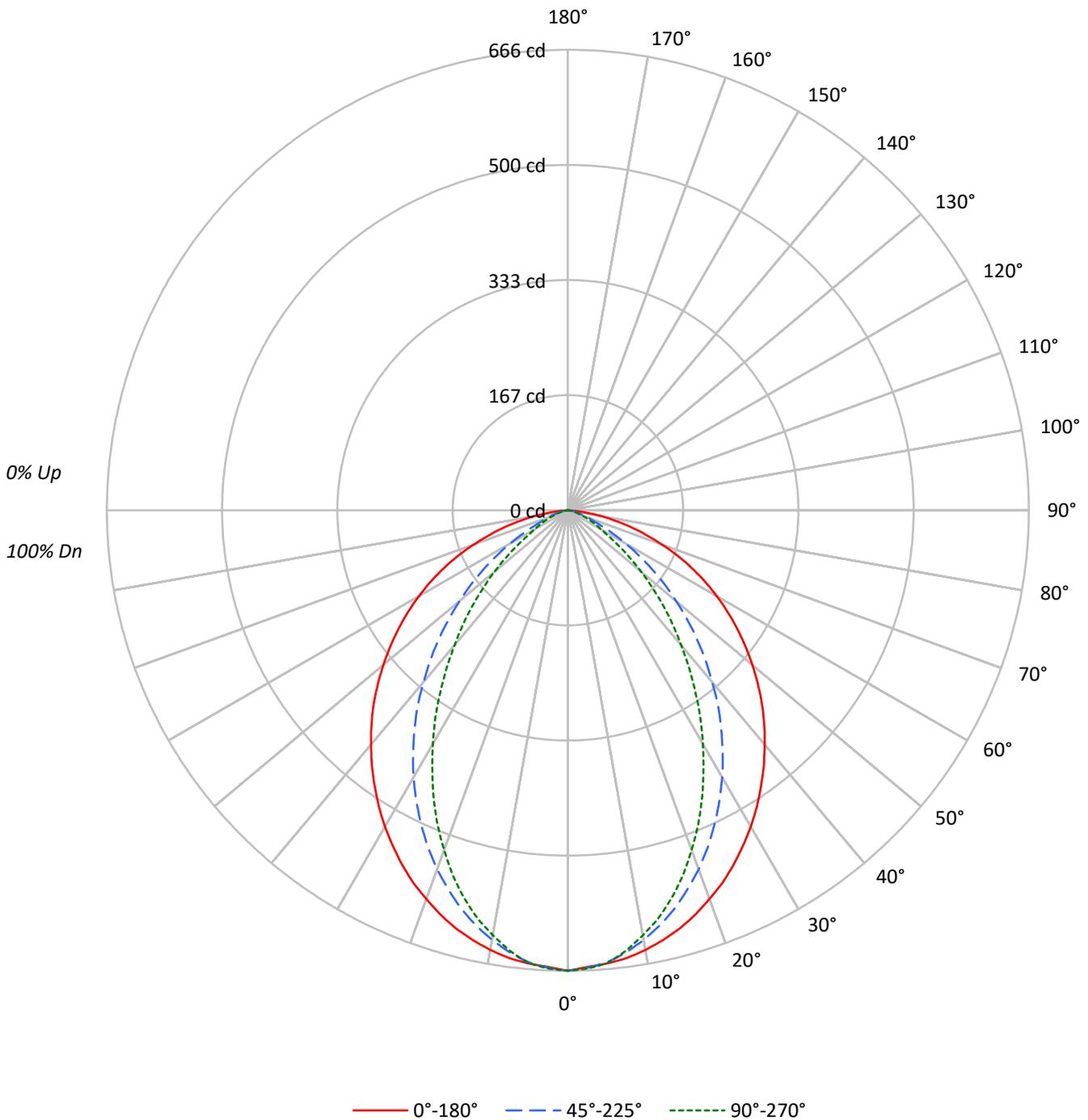
Lumens per Lamp: N/A
Luminaire Lumens: 1203.5 lumens
Efficiency: N/A
Efficacy: 69.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	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	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90					88				
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79					77				
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69					67				
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61					59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54					52				
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49					47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	54	48	44					42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40					38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36					35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34					32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4707	4707	4707
5°	4669	4655	4664
10°	4634	4528	4479
15°	4580	4363	4246
20°	4500	4156	3934
25°	4415	3910	3578
30°	4313	3639	3186
35°	4199	3331	2772
40°	4080	2993	2344
45°	3964	2638	1942
50°	3824	2245	1525
55°	3678	1824	1109
60°	3513	1360	793
65°	3300	897	619
70°	2983	624	434
75°	2595	404	336
80°	2031	301	277
85°	1046	251	203

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3964 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	5.2
10°-20°	168.6	14.0
20°-30°	233.2	19.4
30°-40°	247.0	20.5
40°-50°	215.6	17.9
50°-60°	153.4	12.7
60°-70°	85.3	7.1
70°-80°	32.8	2.7
80°-90°	5.7	0.5
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°	463.8	38.5
0°-40°	710.8	59.1
0°-60°	1079.8	89.7
0°-90°	1203.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1203.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	666	666	666	666	666	
5°	658	663	656	654	657	62
15°	626	620	596	583	580	176
25°	566	547	501	470	459	261
35°	486	453	386	339	321	304
45°	396	349	264	211	194	306
55°	298	239	148	102	90	267
65°	197	130	54	40	37	195
75°	95	37	15	12	12	101
85°	13	4	3	2	2	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	665.9	665.9	665.9	665.9	665.9
2.5°	661.0	667.7	662.2	662.8	663.4
5°	657.9	662.8	656.0	654.2	657.3
7.5°	653.0	656.7	644.9	640.6	642.5
10°	645.6	646.8	630.8	624.6	624.0
12.5°	636.3	634.5	614.7	604.9	604.2
15°	625.8	620.3	596.2	583.3	580.2
17.5°	612.9	604.2	574.6	558.0	553.1
20°	598.1	586.4	552.5	530.9	522.9
22.5°	583.3	567.2	527.8	500.7	492.0
25°	566.0	546.9	501.3	470.4	458.7
27.5°	547.5	524.7	474.1	438.4	424.2
30°	528.4	501.9	445.8	405.7	390.3
32.5°	508.1	477.8	416.2	372.4	356.4
35°	486.5	453.2	386.0	339.1	321.2
37.5°	464.9	427.9	356.4	306.4	287.9
40°	442.1	402.0	324.3	273.1	254.0
42.5°	419.9	375.5	294.1	241.7	224.4
45°	396.5	349.0	263.9	210.9	194.2
47.5°	372.4	321.2	233.7	181.9	165.2
50°	347.7	294.1	204.1	153.5	138.7
52.5°	323.1	267.0	176.3	126.4	113.4
55°	298.4	239.2	148.0	102.4	90.0
57.5°	273.8	212.1	121.5	80.2	69.1
60°	248.5	184.4	96.2	59.2	56.1
62.5°	223.2	157.2	74.6	48.7	46.2
65°	197.3	129.5	53.6	39.5	37.0
67.5°	171.4	104.2	38.8	30.2	28.4
70°	144.3	79.5	30.2	22.8	21.0
72.5°	118.4	57.3	21.6	16.6	16.0
75°	95.0	37.0	14.8	12.3	12.3
77.5°	71.5	22.2	10.5	9.2	9.2
80°	49.9	12.9	7.4	6.8	6.8
82.5°	30.2	6.8	4.9	4.3	4.3
85°	12.9	3.7	3.1	2.5	2.5
87.5°	2.5	1.2	1.2	1.2	1.2
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	16.54	17.99	16.91	18.30	18.62	9.19	10.63	9.55	10.94	11.26
	3H	18.10	19.39	18.48	19.72	20.08	9.75	11.04	10.13	11.36	11.73
	4H	18.62	19.83	19.03	20.18	20.56	9.87	11.07	10.27	11.42	11.80
	6H	18.96	20.07	19.38	20.44	20.83	9.94	11.04	10.35	11.41	11.80
	8H	19.04	20.10	19.47	20.49	20.89	9.94	10.99	10.37	11.38	11.79
	12H	19.07	20.07	19.50	20.46	20.89	9.93	10.94	10.36	11.32	11.75
4H	2H	16.44	17.64	16.84	17.99	18.37	9.75	10.95	10.15	11.30	11.68
	3H	18.11	19.09	18.52	19.50	19.90	10.42	11.41	10.83	11.81	12.21
	4H	18.66	19.54	19.09	19.96	20.40	10.58	11.46	11.01	11.88	12.32
	6H	19.05	19.81	19.51	20.26	20.72	10.69	11.45	11.15	11.90	12.36
	8H	19.15	19.87	19.62	20.31	20.78	10.70	11.41	11.17	11.86	12.33
	12H	19.20	19.83	19.68	20.31	20.79	10.70	11.33	11.19	11.82	12.29
8H	4H	18.56	19.27	19.03	19.72	20.19	10.85	11.56	11.31	12.00	12.47
	6H	18.95	19.53	19.45	20.02	20.50	10.98	11.56	11.48	12.06	12.54
	8H	19.05	19.58	19.57	20.09	20.58	11.01	11.53	11.53	12.04	12.53
	12H	19.12	19.58	19.63	20.07	20.64	11.03	11.49	11.54	11.99	12.55
12H	4H	18.52	19.16	19.01	19.64	20.11	10.86	11.49	11.35	11.98	12.45
	6H	18.89	19.42	19.41	19.93	20.42	10.99	11.52	11.51	12.03	12.52
	8H	19.02	19.48	19.53	19.98	20.55	11.05	11.51	11.56	12.01	12.57