

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: P1056460

Luminaire Tested: S125R3DR-S610D940-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056460
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-S610D940-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

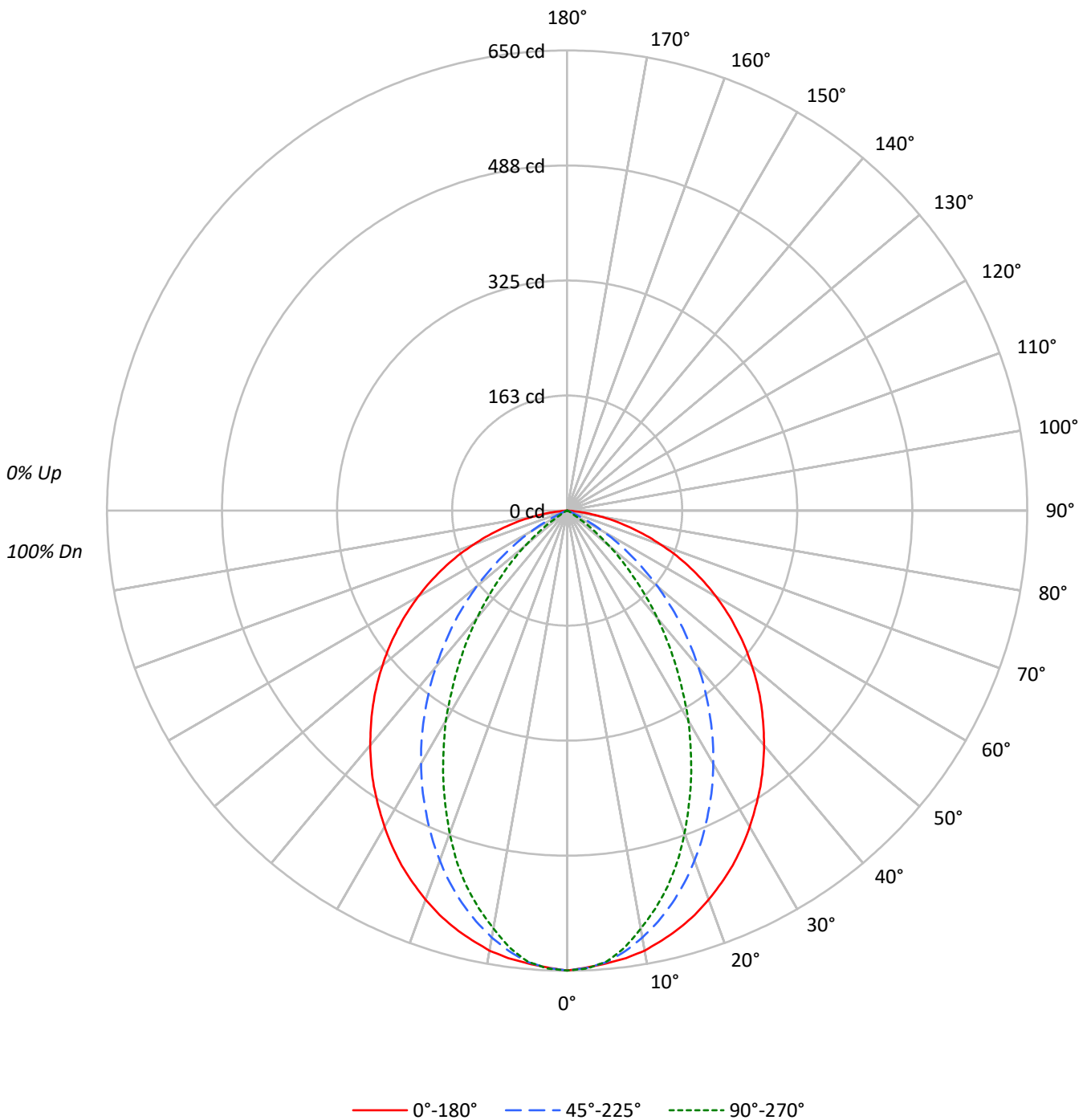
Lumens per Lamp: N/A
Luminaire Lumens: 1053.1 lumens
Efficiency: N/A
Efficacy: 55.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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	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°	4593	4593	4593
5°	4556	4542	4537
10°	4530	4396	4303
15°	4472	4199	4020
20°	4399	3958	3648
25°	4314	3677	3235
30°	4210	3370	2797
35°	4107	3028	2312
40°	3993	2662	1830
45°	3876	2272	1327
50°	3746	1834	857
55°	3604	1341	381
60°	3433	829	109
65°	3220	301	65
70°	2914	107	27
75°	2532	36	16
80°	1942	24	0
85°	884	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3876 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.3	5.7
10°-20°	162.0	15.4
20°-30°	219.2	20.8
30°-40°	225.2	21.4
40°-50°	186.6	17.7
50°-60°	119.8	11.4
60°-70°	57.9	5.5
70°-80°	19.6	1.9
80°-90°	2.5	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°	441.6	41.9
0°-40°	666.8	63.3
0°-60°	973.2	92.4
0°-90°	1053.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1053.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	650	650	650	650	650	
5°	642	647	640	636	639	61
15°	611	603	574	554	549	172
25°	553	526	471	429	415	255
35°	476	430	351	290	268	297
45°	388	324	227	157	133	299
55°	292	214	109	48	31	261
65°	192	106	18	5	4	190
75°	93	20	1	1	1	98
85°	11	0	0	0	0	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	649.7	649.7	649.7	649.7	649.7
2.5°	645.9	651.0	646.5	645.9	647.2
5°	642.0	647.2	640.1	636.2	639.4
7.5°	637.5	640.1	627.8	621.4	622.7
10°	631.1	630.4	612.4	601.4	599.5
12.5°	621.4	618.2	594.4	578.9	575.7
15°	611.1	603.4	573.8	553.8	549.3
17.5°	598.9	586.6	551.2	525.5	519.0
20°	584.7	568.0	526.1	494.5	484.9
22.5°	569.2	548.0	499.7	462.4	449.5
25°	553.1	526.1	471.4	428.9	414.7
27.5°	535.1	503.6	443.0	394.7	377.4
30°	515.8	479.7	412.8	360.0	342.6
32.5°	495.8	455.9	382.5	325.2	303.9
35°	475.9	430.2	350.9	289.8	267.9
37.5°	454.6	404.4	320.0	256.3	232.5
40°	432.7	378.0	288.5	221.5	198.3
42.5°	410.2	350.9	256.9	188.7	164.8
45°	387.7	323.9	227.3	157.1	132.7
47.5°	364.5	296.2	196.4	126.2	105.0
50°	340.6	269.2	166.8	98.5	77.9
52.5°	316.8	241.5	136.5	71.5	52.8
55°	292.4	214.4	108.8	47.7	30.9
57.5°	267.9	186.7	83.1	26.4	11.6
60°	242.8	160.3	58.6	9.0	7.7
62.5°	218.3	132.0	36.7	7.1	5.8
65°	192.5	106.3	18.0	5.2	3.9
67.5°	167.4	81.8	7.7	3.2	1.9
70°	141.0	59.2	5.2	1.9	1.3
72.5°	116.6	38.0	3.2	1.3	0.6
75°	92.7	20.0	1.3	0.6	0.6
77.5°	69.5	8.4	0.6	0.6	0.6
80°	47.7	3.9	0.6	0.6	0.0
82.5°	28.3	1.3	0.6	0.6	0.0
85°	10.9	0.0	0.0	0.0	0.0
87.5°	0.6	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	16.36	17.75	16.73	18.06	18.38	1.23	2.61	1.59	2.93	3.24
	3H	17.91	19.14	18.29	19.47	19.84	1.15	2.38	1.53	2.71	3.07
	4H	18.44	19.58	18.84	19.93	20.31	1.08	2.23	1.49	2.58	2.96
	6H	18.78	19.83	19.19	20.20	20.59	1.01	2.06	1.43	2.43	2.83
	8H	18.86	19.85	19.29	20.25	20.65	0.97	1.97	1.40	2.36	2.76
	12H	18.87	19.83	19.31	20.21	20.64	0.93	1.88	1.36	2.27	2.70
4H	2H	16.17	17.31	16.57	17.66	18.04	2.09	3.24	2.49	3.59	3.97
	3H	17.78	18.72	18.19	19.12	19.52	2.04	2.97	2.45	3.38	3.78
	4H	18.30	19.14	18.74	19.56	20.00	1.96	2.79	2.40	3.21	3.66
	6H	18.68	19.40	19.14	19.84	20.31	1.89	2.61	2.36	3.06	3.52
	8H	18.78	19.45	19.25	19.90	20.37	1.84	2.51	2.31	2.96	3.43
	12H	18.81	19.41	19.30	19.89	20.36	1.80	2.39	2.29	2.88	3.35
8H	4H	18.18	18.85	18.64	19.29	19.76	2.98	3.65	3.45	4.10	4.57
	6H	18.53	19.08	19.03	19.58	20.06	2.90	3.45	3.40	3.94	4.42
	8H	18.63	19.12	19.15	19.63	20.13	2.85	3.34	3.37	3.85	4.34
	12H	18.67	19.10	19.18	19.60	20.17	2.80	3.24	3.32	3.73	4.30
12H	4H	18.13	18.73	18.62	19.21	19.68	3.06	3.66	3.55	4.14	4.61
	6H	18.47	18.97	18.99	19.48	19.97	2.96	3.46	3.48	3.97	4.46
	8H	18.59	19.02	19.10	19.51	20.08	2.93	3.36	3.44	3.86	4.43