

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: P1056445

Luminaire Tested: S125R3DR-S610D840-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056445
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-S610D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

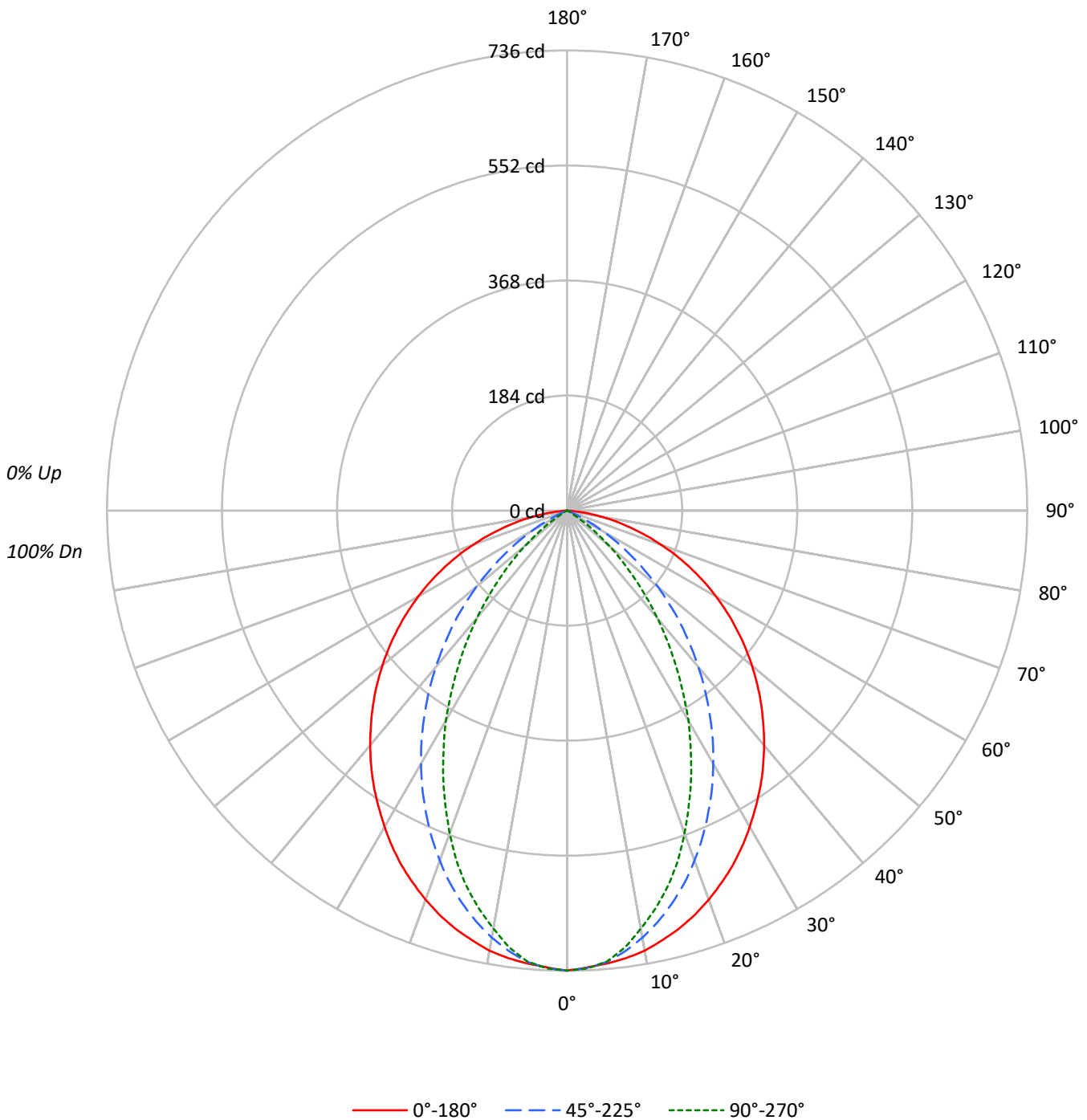
Lumens per Lamp: N/A
Luminaire Lumens: 1192.7 lumens
Efficiency: N/A
Efficacy: 62.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1056445

CATALOG NUMBER: S125R3DR-S610D840-X4F0-XX-UDD-F-B

Luminous Intensity Polar Plot





TEST NUMBER: P1056445

CATALOG NUMBER: S125R3DR-S610D840-X4F0-XX-UDD-F-B

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°	5202	5202	5202
5°	5160	5144	5139
10°	5130	4978	4873
15°	5065	4756	4553
20°	4982	4482	4131
25°	4886	4164	3663
30°	4768	3816	3167
35°	4651	3430	2618
40°	4523	3015	2073
45°	4389	2573	1502
50°	4243	2078	970
55°	4081	1518	431
60°	3887	939	124
65°	3648	341	74
70°	3301	120	31
75°	2868	41	19
80°	2198	28	0
85°	1006	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4389 cd/sqm



TEST NUMBER: P1056445

CATALOG NUMBER: S125R3DR-S610D840-X4F0-XX-UDD-F-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.3	5.7
10°-20°	183.5	15.4
20°-30°	248.3	20.8
30°-40°	255.0	21.4
40°-50°	211.3	17.7
50°-60°	135.7	11.4
60°-70°	65.5	5.5
70°-80°	22.2	1.9
80°-90°	2.8	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°	500.1	41.9
0°-40°	755.2	63.3
0°-60°	1102.1	92.4
0°-90°	1192.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1192.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	727	733	725	720	724	69
15°	692	683	650	627	622	195
25°	626	596	534	486	470	288
35°	539	487	398	328	303	337
45°	439	367	257	178	150	339
55°	331	243	123	54	35	296
65°	218	120	20	6	4	216
75°	105	23	2	1	1	111
85°	12	0	0	0	0	20
90°	0	0	0	0	0	



TEST NUMBER: P1056445

CATALOG NUMBER: S125R3DR-S610D840-X4F0-XX-UDD-F-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	735.8	735.8	735.8	735.8	735.8
2.5°	731.5	737.3	732.2	731.5	732.9
5°	727.1	732.9	724.9	720.5	724.2
7.5°	722.0	724.9	711.0	703.7	705.2
10°	714.7	714.0	693.5	681.1	678.9
12.5°	703.7	700.1	673.1	655.6	652.0
15°	692.1	683.3	649.8	627.2	622.1
17.5°	678.2	664.4	624.3	595.1	587.8
20°	662.2	643.2	595.8	560.1	549.1
22.5°	644.7	620.6	565.9	523.6	509.0
25°	626.4	595.8	533.8	485.7	469.6
27.5°	606.0	570.3	501.7	447.0	427.4
30°	584.1	543.3	467.5	407.7	388.0
32.5°	561.5	516.3	433.2	368.3	344.2
35°	538.9	487.2	397.5	328.2	303.4
37.5°	514.9	458.0	362.4	290.2	263.3
40°	490.1	428.1	326.7	250.9	224.6
42.5°	464.5	397.5	291.0	213.7	186.7
45°	439.0	366.8	257.4	177.9	150.2
47.5°	412.8	335.5	222.4	142.9	118.9
50°	385.8	304.8	188.9	111.6	88.2
52.5°	358.8	273.5	154.6	80.9	59.8
55°	331.1	242.8	123.2	54.0	35.0
57.5°	303.4	211.5	94.1	29.9	13.1
60°	274.9	181.6	66.4	10.2	8.8
62.5°	247.2	149.5	41.6	8.0	6.6
65°	218.1	120.3	20.4	5.8	4.4
67.5°	189.6	92.6	8.8	3.6	2.2
70°	159.7	67.1	5.8	2.2	1.5
72.5°	132.0	43.0	3.6	1.5	0.7
75°	105.0	22.6	1.5	0.7	0.7
77.5°	78.8	9.5	0.7	0.7	0.7
80°	54.0	4.4	0.7	0.7	0.0
82.5°	32.1	1.5	0.7	0.7	0.0
85°	12.4	0.0	0.0	0.0	0.0
87.5°	0.7	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1056445

CATALOG NUMBER: S125R3DR-S610D840-X4F0-XX-UDD-F-B

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	16.80	18.18	17.16	18.50	18.81	1.66	3.05	2.03	3.36	3.67
	3H	18.35	19.58	18.73	19.90	20.27	1.58	2.81	1.96	3.14	3.50
	4H	18.87	20.01	19.27	20.36	20.75	1.52	2.66	1.92	3.01	3.39
	6H	19.21	20.26	19.62	20.63	21.02	1.45	2.50	1.86	2.87	3.26
	8H	19.29	20.29	19.72	20.68	21.08	1.41	2.40	1.83	2.79	3.20
	12H	19.31	20.26	19.74	20.64	21.07	1.37	2.32	1.80	2.70	3.13
4H	2H	16.60	17.75	17.00	18.10	18.48	2.52	3.67	2.93	4.02	4.40
	3H	18.21	19.15	18.63	19.55	19.95	2.47	3.41	2.89	3.81	4.21
	4H	18.74	19.57	19.17	19.99	20.43	2.40	3.23	2.83	3.65	4.09
	6H	19.11	19.83	19.57	20.28	20.74	2.33	3.05	2.79	3.49	3.96
	8H	19.21	19.88	19.68	20.33	20.80	2.28	2.95	2.75	3.40	3.87
	12H	19.25	19.84	19.73	20.32	20.80	2.24	2.83	2.72	3.31	3.79
8H	4H	18.61	19.28	19.08	19.73	20.20	3.42	4.09	3.88	4.53	5.00
	6H	18.97	19.51	19.47	20.01	20.49	3.33	3.88	3.83	4.38	4.86
	8H	19.06	19.55	19.58	20.07	20.56	3.28	3.77	3.80	4.29	4.78
	12H	19.10	19.54	19.62	20.03	20.60	3.24	3.67	3.75	4.17	4.74
12H	4H	18.57	19.16	19.05	19.64	20.12	3.50	4.09	3.98	4.57	5.04
	6H	18.91	19.40	19.43	19.91	20.40	3.40	3.89	3.92	4.40	4.89
	8H	19.02	19.45	19.53	19.95	20.52	3.36	3.80	3.88	4.29	4.86