

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: P1056484

Luminaire Tested: S125R3DR-S850D935-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056484
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-S850D935-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

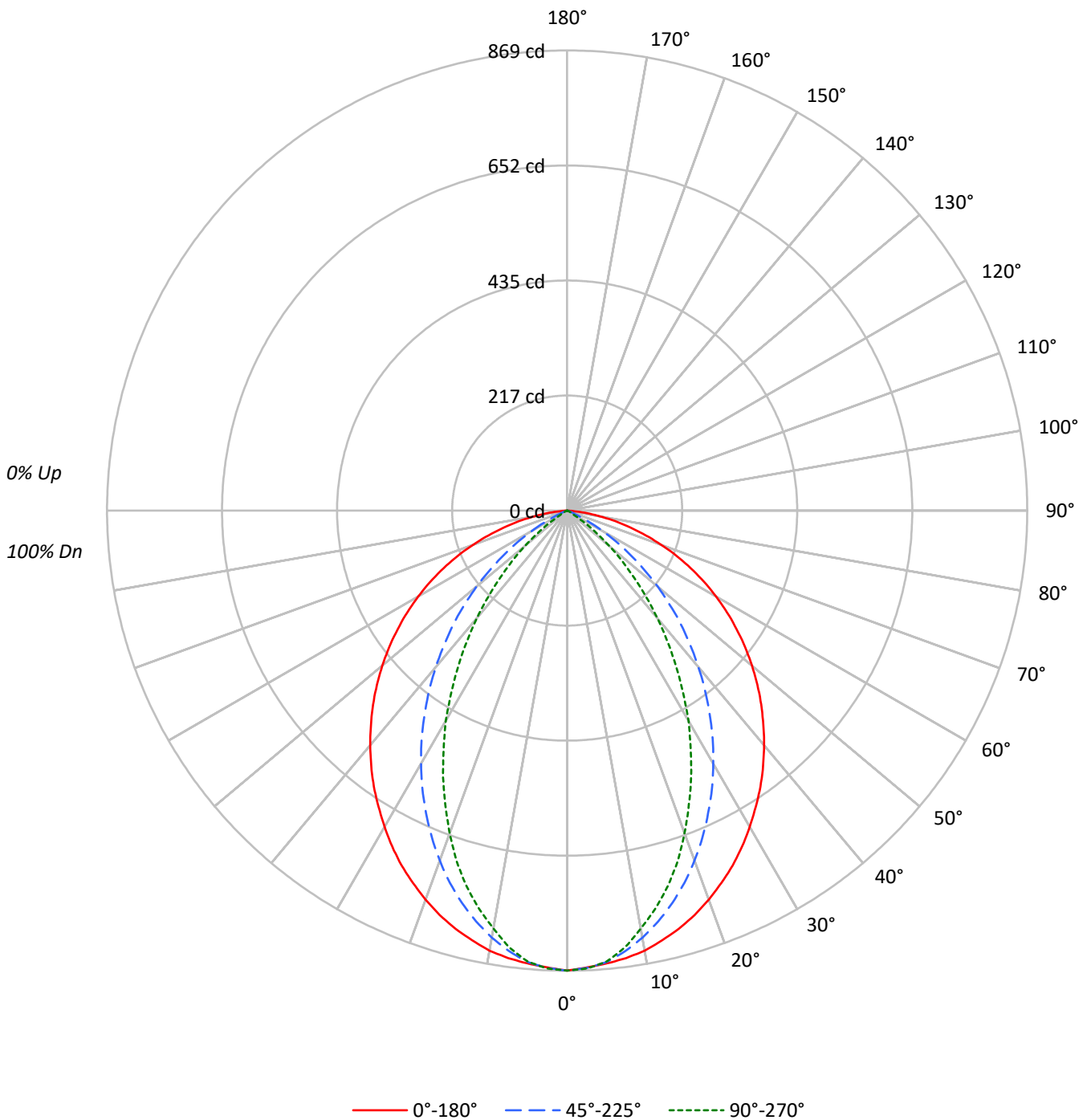
Lumens per Lamp: N/A
Luminaire Lumens: 1408.1 lumens
Efficiency: N/A
Efficacy: 53.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (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: P1056484

CATALOG NUMBER: S125R3DR-S850D935-X4F0-XX-UDD-F-B

Luminous Intensity Polar Plot





TEST NUMBER: P1056484

CATALOG NUMBER: S125R3DR-S850D935-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°	6141	6141	6141
5°	6091	6073	6067
10°	6057	5878	5754
15°	5980	5615	5375
20°	5882	5292	4877
25°	5769	4916	4325
30°	5630	4505	3739
35°	5491	4049	3091
40°	5340	3559	2447
45°	5182	3038	1774
50°	5010	2453	1146
55°	4818	1793	509
60°	4589	1108	146
65°	4306	403	87
70°	3898	143	35
75°	3387	46	25
80°	2593	37	0
85°	1184	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5182 cd/sqm



TEST NUMBER: P1056484

CATALOG NUMBER: S125R3DR-S850D935-X4F0-XX-UDD-F-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.7	5.7
10°-20°	216.7	15.4
20°-30°	293.1	20.8
30°-40°	301.1	21.4
40°-50°	249.5	17.7
50°-60°	160.2	11.4
60°-70°	77.4	5.5
70°-80°	26.2	1.9
80°-90°	3.4	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°	590.5	41.9
0°-40°	891.6	63.3
0°-60°	1301.2	92.4
0°-90°	1408.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1408.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	869	869	869	869	869	
5°	858	865	856	851	855	82
15°	817	807	767	740	734	230
25°	740	703	630	573	554	340
35°	636	575	469	387	358	398
45°	518	433	304	210	177	400
55°	391	287	146	64	41	349
65°	257	142	24	7	5	255
75°	124	27	2	1	1	131
85°	15	0	0	0	0	23
90°	0	0	0	0	0	



TEST NUMBER: P1056484

CATALOG NUMBER: S125R3DR-S850D935-X4F0-XX-UDD-F-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	868.7	868.7	868.7	868.7	868.7
2.5°	863.6	870.5	864.4	863.6	865.3
5°	858.4	865.3	855.8	850.7	855.0
7.5°	852.4	855.8	839.5	830.9	832.6
10°	843.8	842.9	818.8	804.2	801.6
12.5°	830.9	826.6	794.7	774.0	769.7
15°	817.1	806.8	767.2	740.5	734.4
17.5°	800.7	784.4	737.0	702.6	694.0
20°	781.8	759.4	703.4	661.2	648.3
22.5°	761.1	732.7	668.1	618.2	601.0
25°	739.6	703.4	630.3	573.4	554.5
27.5°	715.5	673.3	592.4	527.8	504.5
30°	689.7	641.4	551.9	481.3	458.1
32.5°	663.0	609.6	511.4	434.8	406.4
35°	636.3	575.1	469.2	387.4	358.2
37.5°	607.9	540.7	427.9	342.7	310.8
40°	578.6	505.4	385.7	296.2	265.2
42.5°	548.5	469.2	343.5	252.3	220.4
45°	518.3	433.1	303.9	210.1	177.4
47.5°	487.3	396.1	262.6	168.8	140.3
50°	455.5	359.9	223.0	131.7	104.2
52.5°	423.6	322.9	182.5	95.6	70.6
55°	390.9	286.7	145.5	63.7	41.3
57.5°	358.2	249.7	111.1	35.3	15.5
60°	324.6	214.4	78.4	12.1	10.3
62.5°	291.9	176.5	49.1	9.5	7.7
65°	257.4	142.1	24.1	6.9	5.2
67.5°	223.9	109.3	10.3	4.3	2.6
70°	188.6	79.2	6.9	2.6	1.7
72.5°	155.8	50.8	4.3	1.7	0.9
75°	124.0	26.7	1.7	0.9	0.9
77.5°	93.0	11.2	0.9	0.9	0.9
80°	63.7	5.2	0.9	0.9	0.0
82.5°	37.9	1.7	0.9	0.9	0.0
85°	14.6	0.0	0.0	0.0	0.0
87.5°	0.9	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1056484

CATALOG NUMBER: S125R3DR-S850D935-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	17.37	18.76	17.74	19.07	19.39	2.24	3.62	2.60	3.94	4.25
	3H	18.92	20.15	19.30	20.48	20.85	2.16	3.39	2.54	3.72	4.08
	4H	19.45	20.59	19.85	20.94	21.32	2.10	3.24	2.50	3.59	3.97
	6H	19.79	20.84	20.20	21.21	21.60	2.03	3.08	2.44	3.45	3.84
	8H	19.87	20.86	20.30	21.26	21.66	1.99	2.98	2.42	3.37	3.78
	12H	19.89	20.84	20.32	21.22	21.65	1.95	2.90	2.38	3.28	3.71
4H	2H	17.18	18.32	17.58	18.67	19.05	3.10	4.25	3.51	4.60	4.98
	3H	18.79	19.73	19.20	20.13	20.53	3.05	3.99	3.46	4.39	4.79
	4H	19.31	20.15	19.75	20.57	21.01	2.98	3.81	3.41	4.23	4.67
	6H	19.69	20.41	20.15	20.85	21.32	2.91	3.63	3.37	4.08	4.54
	8H	19.79	20.46	20.26	20.91	21.38	2.86	3.53	3.33	3.98	4.45
	12H	19.82	20.42	20.31	20.90	21.37	2.82	3.41	3.30	3.89	4.37
8H	4H	19.19	19.86	19.65	20.30	20.77	4.00	4.67	4.47	5.11	5.58
	6H	19.54	20.09	20.04	20.59	21.07	3.92	4.46	4.42	4.96	5.44
	8H	19.64	20.13	20.16	20.64	21.14	3.86	4.36	4.38	4.87	5.36
	12H	19.68	20.11	20.19	20.61	21.18	3.82	4.26	4.34	4.75	5.32
12H	4H	19.14	19.74	19.63	20.22	20.69	4.08	4.67	4.56	5.15	5.62
	6H	19.48	19.97	20.00	20.49	20.98	3.98	4.47	4.50	4.99	5.48
	8H	19.60	20.03	20.11	20.52	21.09	3.95	4.38	4.46	4.88	5.45