

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: P1056487

Luminaire Tested: S125R3DR-S850D940-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056487
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-S850D940-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

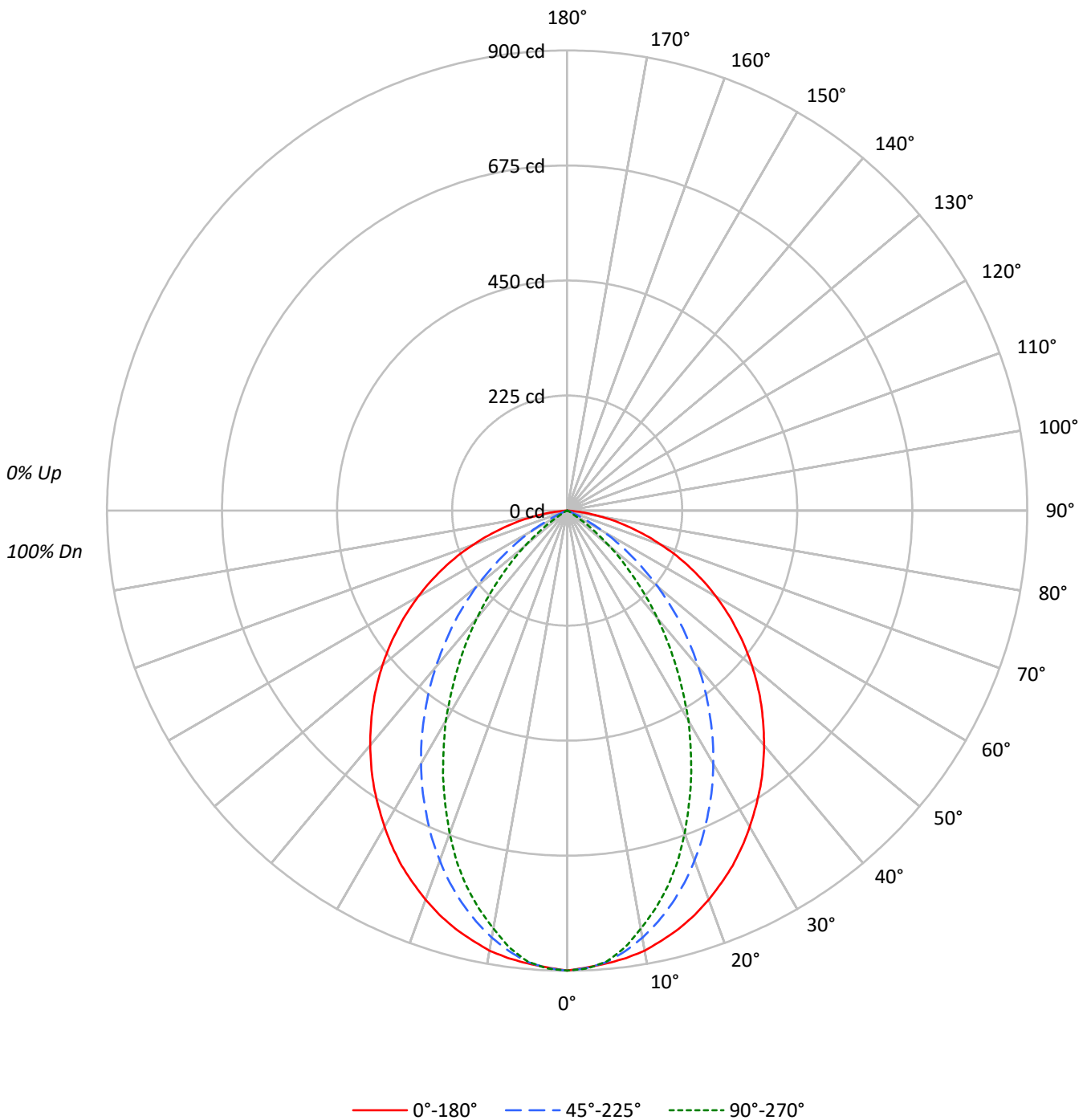
Lumens per Lamp: N/A
Luminaire Lumens: 1458.3 lumens
Efficiency: N/A
Efficacy: 55.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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

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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	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°	6360	6360	6360
5°	6309	6290	6284
10°	6273	6087	5960
15°	6193	5815	5567
20°	6091	5481	5052
25°	5975	5091	4480
30°	5831	4666	3873
35°	5687	4194	3202
40°	5530	3687	2534
45°	5367	3147	1837
50°	5188	2541	1187
55°	4989	1857	528
60°	4753	1147	151
65°	4460	418	90
70°	4037	147	37
75°	3507	49	25
80°	2687	37	0
85°	1233	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5367 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.6	5.7
10°-20°	224.4	15.4
20°-30°	303.6	20.8
30°-40°	311.9	21.4
40°-50°	258.4	17.7
50°-60°	165.9	11.4
60°-70°	80.1	5.5
70°-80°	27.1	1.9
80°-90°	3.5	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°	611.5	41.9
0°-40°	923.4	63.3
0°-60°	1347.6	92.4
0°-90°	1458.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1458.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	900	900	900	900	900	
5°	889	896	886	881	886	84
15°	846	836	794	767	761	238
25°	766	728	653	594	574	352
35°	659	596	486	401	371	412
45°	537	448	315	218	184	414
55°	405	297	151	66	43	362
65°	267	147	25	7	5	264
75°	128	28	2	1	1	136
85°	15	0	0	0	0	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	899.7	899.7	899.7	899.7	899.7
2.5°	894.4	901.5	895.3	894.4	896.2
5°	889.0	896.2	886.4	881.0	885.5
7.5°	882.8	886.4	869.4	860.5	862.3
10°	873.9	873.0	848.0	832.9	830.2
12.5°	860.5	856.0	823.1	801.6	797.2
15°	846.2	835.5	794.5	766.9	760.6
17.5°	829.3	812.3	763.3	727.6	718.7
20°	809.7	786.5	728.5	684.8	671.5
22.5°	788.3	758.8	692.0	640.2	622.4
25°	766.0	728.5	652.7	593.9	574.3
27.5°	741.0	697.3	613.5	546.6	522.5
30°	714.3	664.3	571.6	498.5	474.4
32.5°	686.6	631.3	529.7	450.3	420.9
35°	659.0	595.7	486.0	401.3	371.0
37.5°	629.5	560.0	443.2	354.9	321.9
40°	599.2	523.4	399.5	306.7	274.6
42.5°	568.0	486.0	355.8	261.3	228.3
45°	536.8	448.5	314.8	217.6	183.7
47.5°	504.7	410.2	272.0	174.8	145.3
50°	471.7	372.7	231.0	136.4	107.9
52.5°	438.7	334.4	189.0	99.0	73.1
55°	404.8	296.9	150.7	66.0	42.8
57.5°	371.0	258.6	115.0	36.6	16.1
60°	336.2	222.0	81.1	12.5	10.7
62.5°	302.3	182.8	50.8	9.8	8.0
65°	266.6	147.1	25.0	7.1	5.4
67.5°	231.8	113.2	10.7	4.5	2.7
70°	195.3	82.0	7.1	2.7	1.8
72.5°	161.4	52.6	4.5	1.8	0.9
75°	128.4	27.6	1.8	0.9	0.9
77.5°	96.3	11.6	0.9	0.9	0.9
80°	66.0	5.4	0.9	0.9	0.0
82.5°	39.2	1.8	0.9	0.9	0.0
85°	15.2	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



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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	17.50	18.88	17.86	19.19	19.51	2.37	3.75	2.73	4.07	4.38
	3H	19.05	20.27	19.42	20.60	20.97	2.29	3.52	2.67	3.85	4.21
	4H	19.57	20.71	19.97	21.06	21.44	2.23	3.37	2.63	3.72	4.10
	6H	19.91	20.96	20.32	21.33	21.72	2.16	3.21	2.57	3.58	3.97
	8H	19.99	20.99	20.42	21.38	21.78	2.12	3.11	2.55	3.50	3.91
	12H	20.01	20.96	20.44	21.34	21.77	2.08	3.03	2.51	3.41	3.84
4H	2H	17.30	18.44	17.70	18.79	19.18	3.23	4.38	3.64	4.73	5.11
	3H	18.91	19.85	19.33	20.25	20.65	3.18	4.12	3.60	4.52	4.92
	4H	19.44	20.27	19.87	20.69	21.13	3.11	3.94	3.54	4.36	4.80
	6H	19.81	20.53	20.27	20.97	21.44	3.04	3.76	3.50	4.21	4.67
	8H	19.91	20.58	20.38	21.03	21.50	2.99	3.66	3.46	4.11	4.58
	12H	19.94	20.54	20.43	21.02	21.49	2.95	3.54	3.43	4.02	4.50
8H	4H	19.31	19.98	19.78	20.42	20.90	4.12	4.79	4.59	5.24	5.71
	6H	19.66	20.21	20.16	20.71	21.19	4.04	4.59	4.54	5.09	5.57
	8H	19.76	20.25	20.28	20.76	21.26	3.99	4.48	4.51	5.00	5.49
	12H	19.80	20.24	20.31	20.73	21.30	3.95	4.38	4.46	4.88	5.45
12H	4H	19.26	19.86	19.75	20.34	20.81	4.20	4.80	4.69	5.28	5.75
	6H	19.60	20.10	20.12	20.61	21.10	4.11	4.60	4.63	5.11	5.60
	8H	19.72	20.15	20.23	20.65	21.22	4.07	4.51	4.59	5.00	5.57