

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: P1056468

Luminaire Tested: S125R3DR-S850D830-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056468
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-S850D830-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

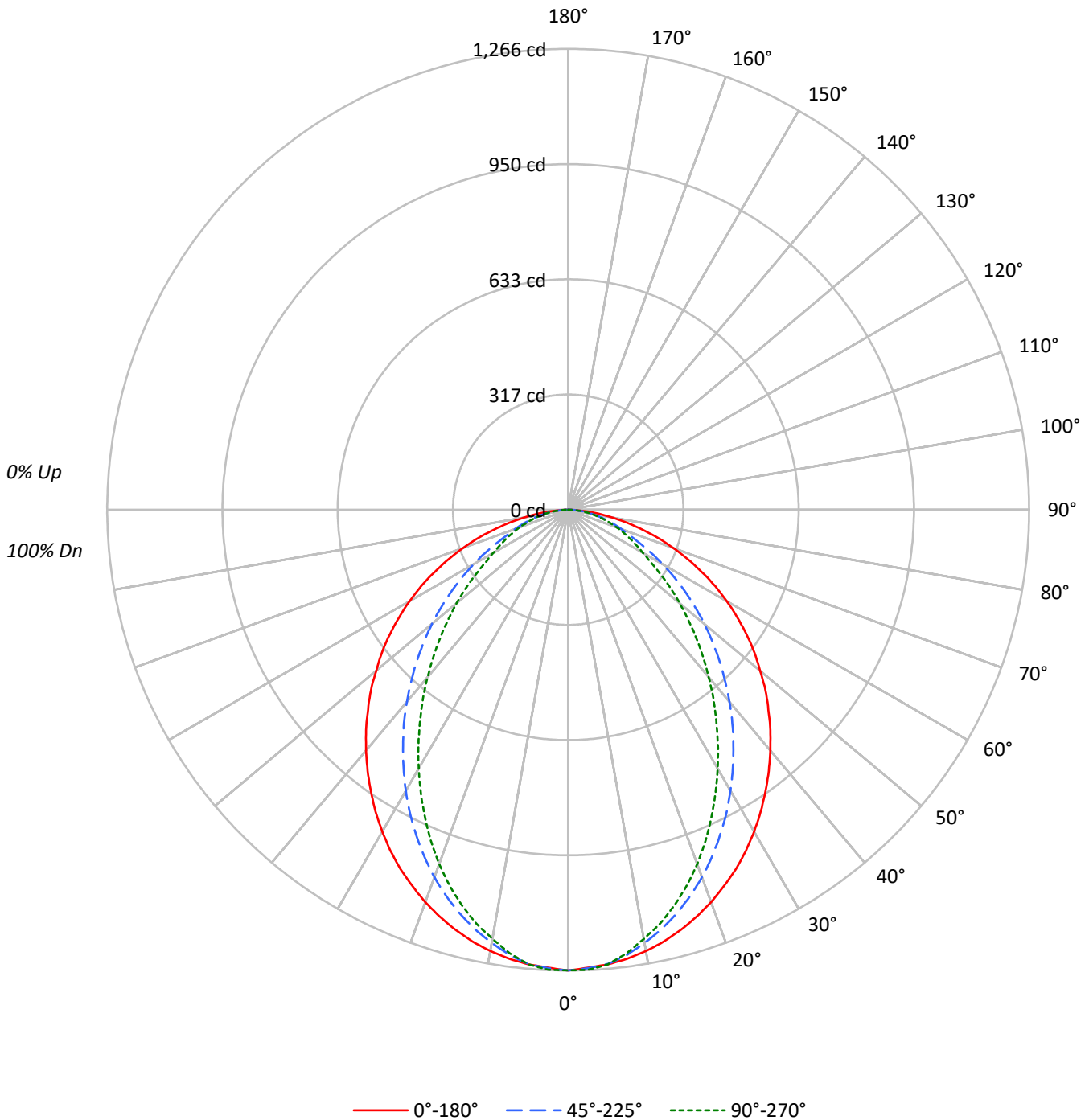
Lumens per Lamp: N/A
Luminaire Lumens: 2682.9 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	31	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8948	8948	8948
5°	8896	8889	8896
10°	8837	8674	8593
15°	8747	8409	8236
20°	8630	8083	7793
25°	8499	7697	7264
30°	8333	7278	6702
35°	8150	6825	6117
40°	7968	6358	5541
45°	7774	5871	4966
50°	7568	5369	4395
55°	7377	4822	3822
60°	7116	4237	3358
65°	6765	3595	3121
70°	6352	3214	2923
75°	5741	2961	2756
80°	4987	2687	2573
85°	3901	2368	2368

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7774 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.4	4.4
10°-20°	325.2	12.1
20°-30°	459.4	17.1
30°-40°	505.7	18.8
40°-50°	471.7	17.6
50°-60°	376.6	14.0
60°-70°	253.4	9.4
70°-80°	135.0	5.0
80°-90°	37.5	1.4
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°	903.0	33.7
0°-40°	1408.7	52.5
0°-60°	2257.0	84.1
0°-90°	2682.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2682.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1266	1266	1266	1266	1266	
5°	1254	1264	1253	1249	1254	119
15°	1195	1188	1149	1129	1125	337
25°	1090	1057	987	944	931	502
35°	944	889	791	729	709	591
45°	778	704	587	516	497	600
55°	598	508	391	329	310	534
65°	404	316	215	190	187	401
75°	210	140	108	102	101	224
85°	48	33	29	30	29	57
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1265.8	1265.8	1265.8	1265.8	1265.8
2.5°	1259.2	1269.6	1261.1	1263.0	1264.9
5°	1253.6	1263.9	1252.6	1248.9	1253.6
7.5°	1244.2	1252.6	1233.8	1225.3	1229.1
10°	1231.0	1236.6	1208.3	1197.0	1197.0
12.5°	1214.9	1214.9	1181.0	1165.0	1165.0
15°	1195.1	1188.5	1149.0	1129.2	1125.4
17.5°	1172.5	1160.3	1113.1	1087.7	1083.0
20°	1147.1	1127.3	1074.5	1041.5	1035.9
22.5°	1118.8	1093.3	1032.1	991.6	985.0
25°	1089.6	1056.6	986.8	943.5	931.2
27.5°	1056.6	1017.0	940.7	891.6	876.6
30°	1020.8	975.5	891.6	837.0	821.0
32.5°	984.0	933.1	841.7	783.3	765.3
35°	944.4	888.8	790.8	728.6	708.8
37.5°	904.8	844.5	740.8	675.8	655.1
40°	863.4	797.4	689.0	622.1	600.4
42.5°	821.9	751.2	638.1	570.2	547.6
45°	777.6	704.1	587.2	515.6	496.7
47.5°	735.2	656.0	537.2	467.5	446.8
50°	688.1	606.1	488.2	418.5	399.6
52.5°	644.7	557.0	439.2	374.2	354.4
55°	598.5	508.0	391.2	328.9	310.1
57.5°	550.4	459.0	345.0	286.5	268.6
60°	503.3	410.0	299.7	246.0	237.5
62.5°	455.2	363.8	257.3	215.8	210.2
65°	404.4	315.8	214.9	190.4	186.6
67.5°	356.3	269.6	181.0	166.8	163.1
70°	307.3	223.4	155.5	143.3	141.4
72.5°	259.2	179.1	131.0	122.5	120.6
75°	210.2	139.5	108.4	101.8	100.9
77.5°	164.9	104.6	85.8	82.9	81.1
80°	122.5	78.2	66.0	64.1	63.2
82.5°	83.9	53.7	47.1	47.1	45.2
85°	48.1	33.0	29.2	30.2	29.2
87.5°	17.9	14.1	13.2	14.1	14.1
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	18.90	20.44	19.27	20.76	21.07	15.28	16.82	15.65	17.14	17.45
	3H	20.69	22.07	21.07	22.40	22.76	16.76	18.14	17.14	18.47	18.83
	4H	21.34	22.64	21.74	22.99	23.37	17.35	18.65	17.75	19.00	19.38
	6H	21.82	23.02	22.23	23.38	23.78	17.81	19.01	18.23	19.38	19.77
	8H	21.97	23.12	22.40	23.50	23.91	17.97	19.12	18.40	19.51	19.91
	12H	22.07	23.16	22.50	23.54	23.97	18.09	19.18	18.52	19.57	20.00
4H	2H	19.04	20.34	19.44	20.68	21.06	15.96	17.26	16.36	17.61	17.99
	3H	21.01	22.09	21.42	22.49	22.89	17.64	18.72	18.05	19.12	19.52
	4H	21.75	22.73	22.18	23.14	23.58	18.34	19.32	18.77	19.73	20.17
	6H	22.35	23.19	22.80	23.64	24.10	18.93	19.78	19.38	20.22	20.68
	8H	22.55	23.35	23.02	23.79	24.26	19.14	19.93	19.60	20.37	20.84
	12H	22.70	23.41	23.18	23.89	24.36	19.30	20.01	19.78	20.48	20.95
8H	4H	21.82	22.61	22.28	23.05	23.52	18.71	19.50	19.17	19.94	20.41
	6H	22.47	23.13	22.97	23.62	24.10	19.41	20.06	19.90	20.55	21.03
	8H	22.73	23.32	23.24	23.83	24.31	19.69	20.28	20.20	20.79	21.28
	12H	22.94	23.46	23.45	23.95	24.51	19.93	20.45	20.44	20.95	21.51
12H	4H	21.81	22.52	22.29	23.00	23.47	18.75	19.46	19.24	19.94	20.41
	6H	22.47	23.06	22.98	23.57	24.06	19.48	20.07	19.99	20.58	21.07
	8H	22.76	23.28	23.27	23.78	24.34	19.82	20.34	20.33	20.84	21.40