

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1004640

Luminaire Tested: S125DR-B850DB27-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1004640
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DR-B850DB27-4F0-XX-W2A-D
Description: Define 5 Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

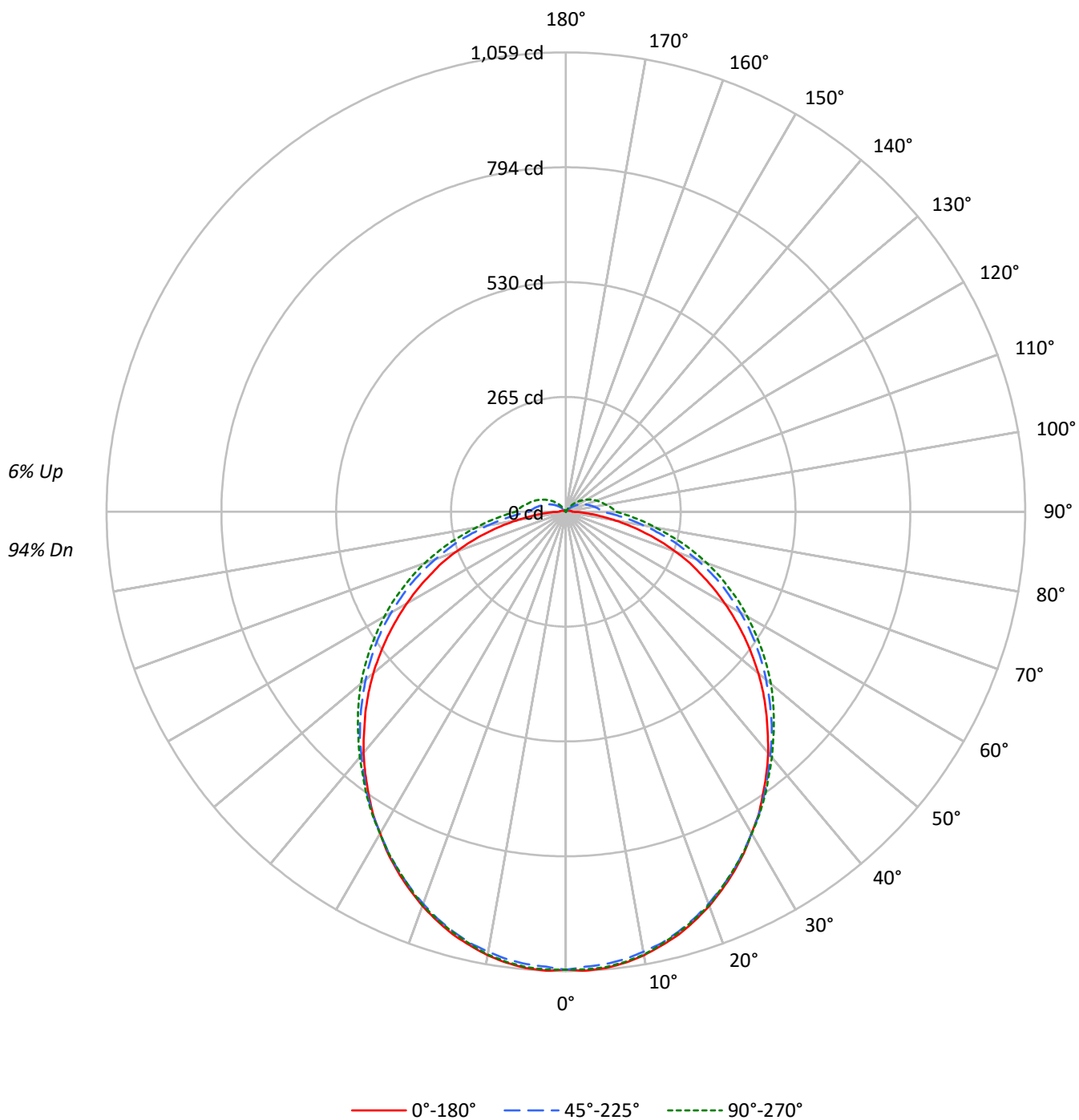
Lumens per Lamp: N/A
Luminaire Lumens: 3271.0 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35.9
Input Voltage (V):
Input Current (Ain): 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6765	6765	6765
5°	6791	6731	6778
10°	6755	6701	6741
15°	6688	6647	6660
20°	6593	6557	6578
25°	6477	6454	6447
30°	6334	6334	6341
35°	6203	6235	6259
40°	6070	6130	6182
45°	5919	6069	6144
50°	5778	6006	6150
55°	5609	5978	6152
60°	5426	5956	6194
65°	5242	5979	6278
70°	5043	5993	6478
75°	4716	6201	6842
80°	4317	6760	7752
85°	4183	9358	11644

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 19918 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.9	3.1
10°-20°	283.6	8.7
20°-30°	421.8	12.9
30°-40°	499.5	15.3
40°-50°	516.4	15.8
50°-60°	475.7	14.5
60°-70°	384.6	11.8
70°-80°	257.3	7.9
80°-90°	133.0	4.1
90°-100°	74.9	2.3
100°-110°	55.2	1.7
110°-120°	37.0	1.1
120°-130°	20.9	0.6
130°-140°	9.2	0.3
140°-150°	1.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	805.4	24.6
0°-40°	1304.9	39.9
0°-60°	2297.1	70.2
0°-90°	3072.0	93.9
90°-120°	167.1	5.1
90°-150°	199.0	6.1
90°-180°	199.0	6.1
0°-180°	3271.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1056	1056	1056	1056	1056	
5°	1056	1054	1047	1055	1054	100
15°	1008	1009	1002	1008	1004	284
25°	916	919	913	917	912	422
35°	793	800	797	800	800	496
45°	653	665	670	677	678	504
55°	502	519	535	547	551	449
65°	346	370	394	410	414	343
75°	190	217	250	271	276	202
85°	57	91	127	150	158	59
90°	17	50	85	109	116	11
95°	14	40	76	98	106	11
105°	9	26	57	78	85	10
115°	6	14	40	59	65	6
125°	4	3	24	40	46	3
135°	2	1	8	22	27	2
145°	1	0	0	5	9	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1055.9	1055.9	1055.9	1055.9	1055.9
2.5°	1059.0	1056.9	1049.7	1056.9	1055.9
5°	1055.9	1053.8	1046.6	1054.9	1053.8
7.5°	1048.7	1047.6	1040.4	1047.6	1046.6
10°	1038.3	1038.3	1030.0	1037.3	1036.2
12.5°	1023.8	1024.8	1018.6	1023.8	1020.7
15°	1008.3	1009.3	1002.1	1008.3	1004.1
17.5°	988.6	990.7	983.4	988.6	985.5
20°	966.9	968.9	961.7	964.8	964.8
22.5°	942.0	946.2	937.9	942.0	938.9
25°	916.2	919.3	913.0	917.2	912.0
27.5°	888.2	892.3	885.1	888.2	886.1
30°	856.1	862.3	856.1	858.2	857.1
32.5°	827.1	832.3	828.2	830.2	829.2
35°	793.0	800.2	797.1	800.2	800.2
37.5°	759.8	766.0	765.0	769.2	768.1
40°	725.7	734.0	732.9	737.1	739.1
42.5°	688.4	699.8	702.9	708.1	708.1
45°	653.2	664.6	669.8	677.0	678.1
47.5°	617.0	627.3	635.6	646.0	648.0
50°	579.7	591.1	602.5	613.9	617.0
52.5°	540.4	554.9	569.4	581.8	583.9
55°	502.1	518.6	535.2	546.6	550.7
57.5°	462.7	482.4	501.0	513.5	516.6
60°	423.4	444.1	464.8	480.3	483.4
62.5°	385.1	405.8	428.6	446.2	450.3
65°	345.8	369.6	394.4	409.9	414.1
67.5°	309.5	332.3	357.1	375.8	381.0
70°	269.2	293.0	319.9	339.5	345.8
72.5°	229.8	254.7	284.7	306.4	310.6
75°	190.5	217.4	250.5	271.2	276.4
77.5°	152.2	183.2	214.3	237.1	241.2
80°	117.0	148.0	183.2	206.0	210.1
82.5°	84.9	118.0	154.2	176.0	184.3
85°	56.9	91.1	127.3	150.1	158.4
87.5°	36.2	69.4	104.6	128.4	135.6
90°	16.6	49.7	84.9	108.7	115.9
92.5°	14.5	44.5	80.7	103.5	110.8
95°	13.5	40.4	75.6	98.3	105.6
97.5°	12.4	37.3	71.4	93.2	100.4
100°	11.4	33.1	66.3	88.0	94.2
102.5°	10.4	30.0	62.1	82.8	89.0
105°	9.3	25.9	56.9	77.6	84.9
107.5°	8.3	22.8	52.8	73.5	79.7
110°	7.2	19.7	48.7	68.3	75.6

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.2	16.6	44.5	63.1	70.4
115°	6.2	13.5	40.4	59.0	65.2
117.5°	5.2	10.4	36.2	53.8	61.1
120°	5.2	8.3	32.1	49.7	55.9
122.5°	4.1	5.2	28.0	44.5	50.7
125°	4.1	3.1	23.8	40.4	45.5
127.5°	3.1	2.1	19.7	35.2	41.4
130°	3.1	2.1	16.6	31.1	36.2
132.5°	2.1	2.1	12.4	26.9	31.1
135°	2.1	1.0	8.3	21.7	26.9
137.5°	2.1	1.0	5.2	17.6	21.7
140°	1.0	1.0	2.1	13.5	17.6
142.5°	1.0	0.0	0.0	9.3	13.5
145°	1.0	0.0	0.0	5.2	9.3
147.5°	0.0	0.0	0.0	2.1	4.1
150°	0.0	0.0	0.0	0.0	1.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)