

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: P998518

Luminaire Tested: S124DR-B575DB2750-4F0-XX-W2A-D_3000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998518
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-16)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DR-B575DB2750-4F0-XX-W2A-D_3000K
Description: Define 4 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

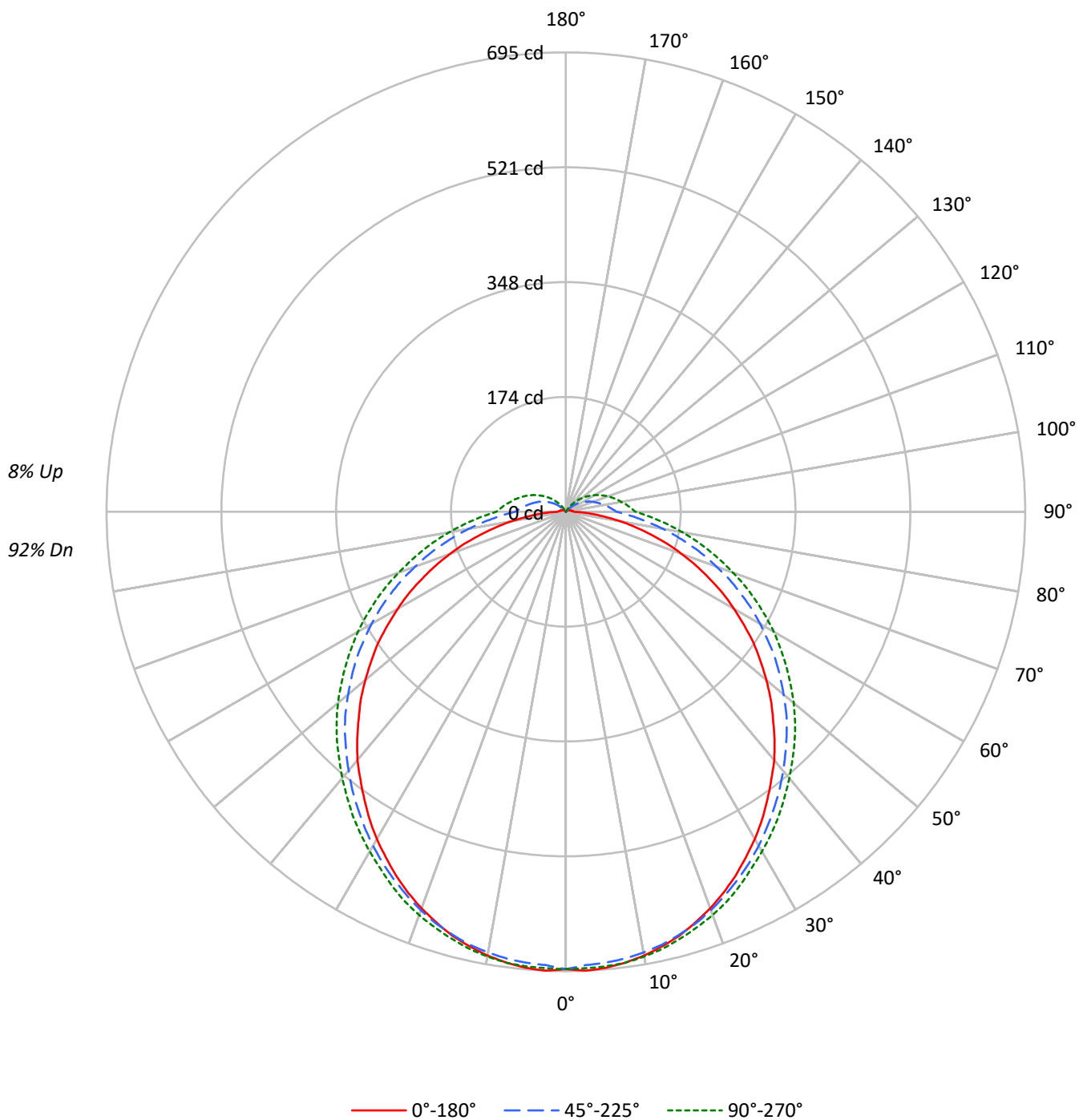
Lumens per Lamp: N/A
Luminaire Lumens: 2359.0 lumens
Efficiency: N/A
Efficacy: 98.3 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24
Input Voltage (V):
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: P998518

CATALOG NUMBER: S124DR-B575DB2750-4F0-XX-W2A-D_3000K

Luminous Intensity Polar Plot



TEST NUMBER: P998518

CATALOG NUMBER: S124DR-B575DB2750-4F0-XX-W2A-D_3000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	50	30	10	0
RCR																					
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	95	95	95	92
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	77	77	77	74
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	63	63	63	60
3	87	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	49	45	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	34	34	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	30	30	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	27	27	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24	24	24	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5642	5642	5642
5°	5670	5606	5651
10°	5645	5607	5659
15°	5606	5593	5645
20°	5540	5567	5635
25°	5466	5528	5612
30°	5384	5493	5588
35°	5291	5461	5592
40°	5221	5444	5600
45°	5111	5450	5647
50°	5022	5455	5711
55°	4935	5496	5783
60°	4790	5535	5927
65°	4635	5621	6115
70°	4451	5782	6411
75°	4200	6128	7029
80°	3968	7020	8406
85°	3845	10151	13052

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 22602 cd/sqm

TEST NUMBER: P998518

CATALOG NUMBER: S124DR-B575DB2750-4F0-XX-W2A-D_3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.6	2.8
10°-20°	187.8	8.0
20°-30°	284.0	12.0
30°-40°	343.6	14.6
40°-50°	363.2	15.4
50°-60°	341.9	14.5
60°-70°	283.7	12.0
70°-80°	199.1	8.4
80°-90°	112.2	4.8
90°-100°	66.8	2.8
100°-110°	49.5	2.1
110°-120°	33.2	1.4
120°-130°	18.7	0.8
130°-140°	8.1	0.3
140°-150°	1.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	537.4	22.8
0°-40°	881.0	37.3
0°-60°	1586.1	67.2
0°-90°	2181.1	92.5
90°-120°	149.5	6.3
90°-150°	177.9	7.5
90°-180°	178.0	7.5
0°-180°	2359.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	692	692	692	692	692	
5°	693	690	685	691	690	66
15°	664	665	662	669	669	187
25°	608	612	614	623	624	280
35°	532	541	549	559	562	333
45°	443	458	473	486	490	343
55°	347	363	387	402	407	309
65°	240	265	291	311	317	238
75°	133	162	194	216	223	142
85°	41	74	108	132	140	43
90°	12	43	77	99	105	8
95°	10	36	67	88	95	8
105°	7	22	51	70	77	8
115°	5	12	36	54	59	5
125°	3	2	22	36	41	3
135°	2	2	7	19	24	1
145°	1	0	0	5	8	1
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

TEST NUMBER: P998518

CATALOG NUMBER: S124DR-B575DB2750-4F0-XX-W2A-D_3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	691.9	691.9	691.9	691.9	691.9
2.5°	695.0	692.7	686.5	691.9	691.1
5°	692.7	690.4	684.9	691.1	690.4
7.5°	688.0	686.5	681.8	688.8	688.0
10°	681.8	681.1	677.2	684.2	683.4
12.5°	673.3	673.3	671.0	677.2	677.2
15°	664.0	664.8	662.5	669.4	668.7
17.5°	651.6	653.9	653.2	660.1	659.4
20°	638.4	640.8	641.5	649.3	649.3
22.5°	623.7	626.8	628.4	636.1	637.7
25°	607.5	612.1	614.4	623.0	623.7
27.5°	589.6	596.6	599.7	607.5	608.2
30°	571.8	578.0	583.4	592.0	593.5
32.5°	552.4	560.2	566.4	576.5	578.0
35°	531.5	540.8	548.6	559.4	561.7
37.5°	510.6	521.4	530.7	541.6	543.9
40°	490.5	500.5	511.4	523.0	526.1
42.5°	467.2	478.8	492.0	505.2	507.5
45°	443.2	457.9	472.6	485.8	489.7
47.5°	420.7	435.4	452.5	465.7	470.3
50°	395.9	413.0	430.0	445.5	450.2
52.5°	371.1	388.2	408.3	423.8	428.5
55°	347.1	363.4	386.6	402.1	406.8
57.5°	320.0	340.1	362.6	381.2	385.1
60°	293.7	313.8	339.4	357.2	363.4
62.5°	268.1	290.6	316.1	333.9	340.1
65°	240.2	265.0	291.3	310.7	316.9
67.5°	213.8	240.2	268.1	287.5	293.7
70°	186.7	213.1	242.5	263.4	268.9
72.5°	160.4	187.5	219.3	239.4	245.6
75°	133.3	161.9	194.5	216.2	223.1
77.5°	107.7	137.9	172.0	193.7	201.5
80°	84.5	115.4	149.5	172.8	179.0
82.5°	61.2	93.8	127.8	151.9	158.8
85°	41.1	73.6	108.5	131.7	139.5
87.5°	25.6	57.3	91.4	113.9	120.9
90°	12.4	43.4	76.7	99.2	105.4
92.5°	11.6	38.7	72.1	93.8	100.0
95°	10.1	35.6	67.4	88.3	95.3
97.5°	9.3	31.8	63.5	83.7	90.7
100°	8.5	28.7	58.9	79.8	85.2
102.5°	8.5	25.6	55.0	75.2	81.4
105°	7.0	22.5	51.1	70.5	76.7
107.5°	7.0	20.1	47.3	66.6	72.1
110°	6.2	17.0	44.2	62.0	68.2



TEST NUMBER: P998518

CATALOG NUMBER: S124DR-B575DB2750-4F0-XX-W2A-D_3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.4	14.7	40.3	57.3	63.5
115°	4.6	11.6	36.4	53.5	58.9
117.5°	4.6	9.3	32.5	48.8	55.0
120°	3.9	6.2	28.7	44.2	50.4
122.5°	3.9	3.9	24.8	40.3	45.7
125°	3.1	2.3	21.7	36.4	41.1
127.5°	3.1	2.3	17.8	31.8	37.2
130°	2.3	1.5	13.9	27.9	32.5
132.5°	2.3	1.5	10.8	24.0	28.7
135°	1.5	1.5	7.0	19.4	24.0
137.5°	1.5	0.8	3.9	15.5	19.4
140°	1.5	0.8	1.5	11.6	15.5
142.5°	0.8	0.8	0.0	8.5	11.6
145°	0.8	0.0	0.0	4.6	7.7
147.5°	0.8	0.0	0.0	0.8	3.9
150°	0.8	0.0	0.0	0.0	0.0
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)