

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: P1037680

Luminaire Tested: S124DS-B575DB2750-4F0-XX-W2A-D_4000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037680
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: S124DS-B575DB2750-4F0-XX-W2A-D_4000K
Description: Define 4 Direct Surface with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

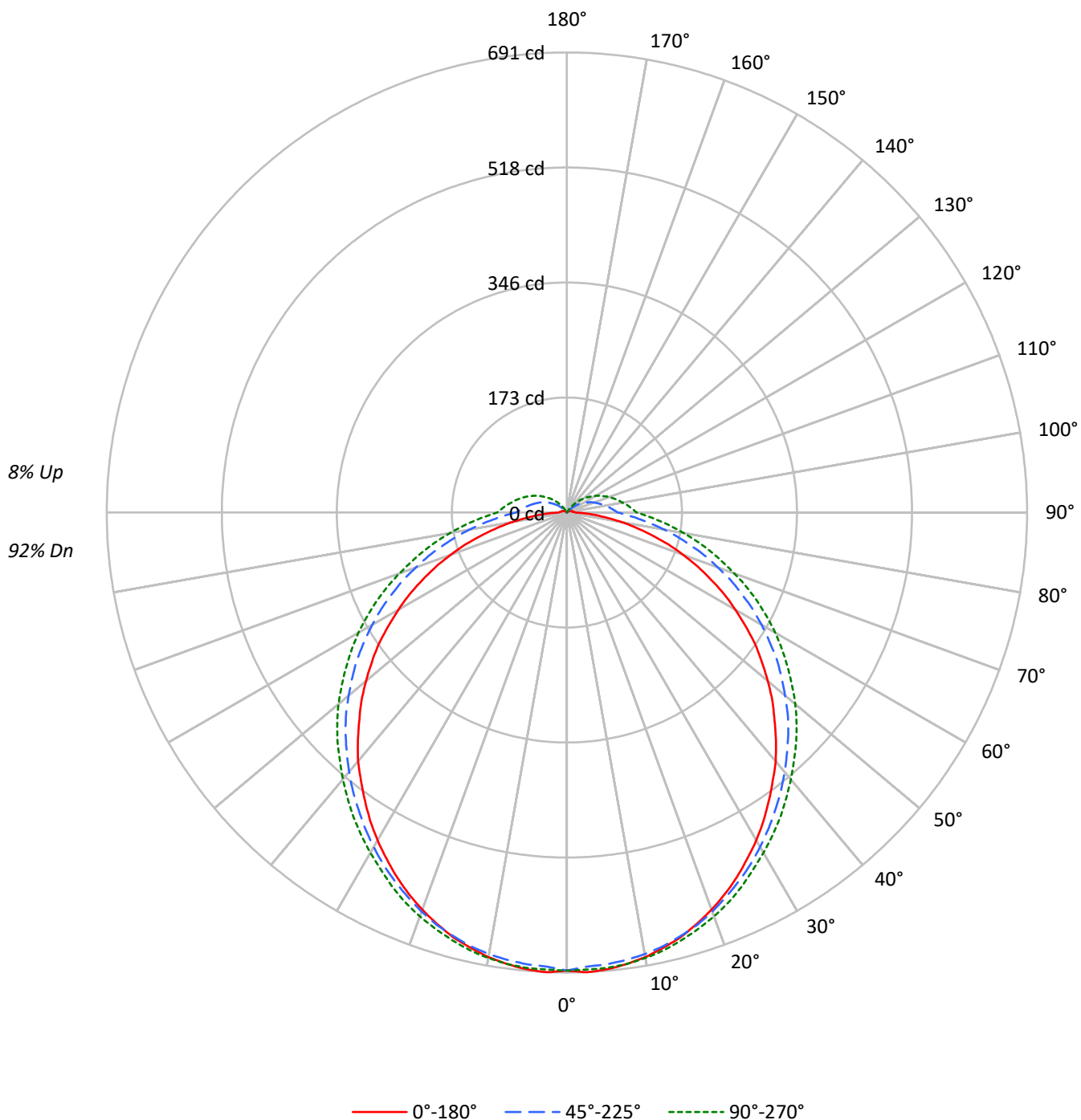
Lumens per Lamp: N/A
Luminaire Lumens: 2346.0 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1037680

CATALOG NUMBER: S124DS-B575DB2750-4F0-XX-W2A-D_4000K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5611	5611	5611
5°	5639	5576	5620
10°	5615	5577	5627
15°	5575	5562	5614
20°	5510	5536	5603
25°	5435	5497	5581
30°	5355	5463	5557
35°	5262	5430	5561
40°	5193	5414	5569
45°	5083	5420	5616
50°	4995	5426	5680
55°	4908	5466	5751
60°	4762	5504	5894
65°	4610	5590	6082
70°	4427	5751	6375
75°	4175	6093	6991
80°	3945	6983	8359
85°	3817	10095	12977

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 22471 cd/sqm

TEST NUMBER: P1037680

CATALOG NUMBER: S124DS-B575DB2750-4F0-XX-W2A-D_4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.2	2.8
10°-20°	186.8	8.0
20°-30°	282.4	12.0
30°-40°	341.7	14.6
40°-50°	361.2	15.4
50°-60°	340.0	14.5
60°-70°	282.1	12.0
70°-80°	198.0	8.4
80°-90°	111.6	4.8
90°-100°	66.4	2.8
100°-110°	49.2	2.1
110°-120°	33.0	1.4
120°-130°	18.6	0.8
130°-140°	8.0	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°	534.4	22.8
0°-40°	876.2	37.3
0°-60°	1577.4	67.2
0°-90°	2169.1	92.5
90°-120°	148.7	6.3
90°-150°	176.9	7.5
90°-180°	177.0	7.5
0°-180°	2346.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	688	688	688	688	688	
5°	689	687	681	687	687	65
15°	660	661	659	666	665	186
25°	604	609	611	620	620	278
35°	529	538	546	556	559	331
45°	441	455	470	483	487	341
55°	345	361	384	400	404	308
65°	239	264	290	309	315	237
75°	132	161	193	215	222	141
85°	41	73	108	131	139	43
90°	12	43	76	99	105	8
95°	10	35	67	88	95	8
105°	7	22	51	70	76	8
115°	5	12	36	53	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: P1037680

CATALOG NUMBER: S124DS-B575DB2750-4F0-XX-W2A-D_4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	688.1	688.1	688.1	688.1	688.1
2.5°	691.2	688.9	682.7	688.1	687.3
5°	688.9	686.6	681.2	687.3	686.6
7.5°	684.2	682.7	678.1	685.0	684.2
10°	678.1	677.3	673.5	680.4	679.6
12.5°	669.6	669.6	667.3	673.5	673.5
15°	660.4	661.1	658.8	665.7	665.0
17.5°	648.0	650.3	649.6	656.5	655.7
20°	634.9	637.2	638.0	645.7	645.7
22.5°	620.3	623.4	624.9	632.6	634.2
25°	604.1	608.7	611.0	619.5	620.3
27.5°	586.4	593.3	596.4	604.1	604.9
30°	568.7	574.8	580.2	588.7	590.2
32.5°	549.4	557.1	563.3	573.3	574.8
35°	528.6	537.8	545.5	556.3	558.6
37.5°	507.8	518.6	527.8	538.6	540.9
40°	487.8	497.8	508.6	520.1	523.2
42.5°	464.6	476.2	489.3	502.4	504.7
45°	440.8	455.4	470.0	483.1	487.0
47.5°	418.4	433.0	450.0	463.1	467.7
50°	393.7	410.7	427.7	443.1	447.7
52.5°	369.1	386.0	406.1	421.5	426.1
55°	345.2	361.4	384.5	399.9	404.5
57.5°	318.2	338.3	360.6	379.1	383.0
60°	292.0	312.1	337.5	355.2	361.4
62.5°	266.6	289.0	314.4	332.1	338.3
65°	238.9	263.5	289.7	309.0	315.2
67.5°	212.7	238.9	266.6	285.9	292.0
70°	185.7	211.9	241.2	262.0	267.4
72.5°	159.5	186.5	218.1	238.1	244.3
75°	132.5	161.0	193.4	215.0	221.9
77.5°	107.1	137.2	171.1	192.6	200.3
80°	84.0	114.8	148.7	171.8	178.0
82.5°	60.9	93.2	127.1	151.0	158.0
85°	40.8	73.2	107.9	131.0	138.7
87.5°	25.4	57.0	90.9	113.3	120.2
90°	12.3	43.2	76.3	98.6	104.8
92.5°	11.6	38.5	71.7	93.2	99.4
95°	10.0	35.4	67.0	87.8	94.8
97.5°	9.2	31.6	63.2	83.2	90.2
100°	8.5	28.5	58.6	79.4	84.8
102.5°	8.5	25.4	54.7	74.7	80.9
105°	6.9	22.3	50.9	70.1	76.3
107.5°	6.9	20.0	47.0	66.3	71.7
110°	6.2	17.0	43.9	61.6	67.8



TEST NUMBER: P1037680

CATALOG NUMBER: S124DS-B575DB2750-4F0-XX-W2A-D_4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.4	14.6	40.1	57.0	63.2
115°	4.6	11.6	36.2	53.2	58.6
117.5°	4.6	9.2	32.4	48.5	54.7
120°	3.9	6.2	28.5	43.9	50.1
122.5°	3.9	3.9	24.7	40.1	45.5
125°	3.1	2.3	21.6	36.2	40.8
127.5°	3.1	2.3	17.7	31.6	37.0
130°	2.3	1.5	13.9	27.7	32.4
132.5°	2.3	1.5	10.8	23.9	28.5
135°	1.5	1.5	6.9	19.3	23.9
137.5°	1.5	0.8	3.9	15.4	19.3
140°	1.5	0.8	1.5	11.6	15.4
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)