

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: P1037377

Luminaire Tested: S123DS-B775DB50-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037377
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-15)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DS-B775DB50-4F0-XX-W2A-D
Description: Define 3 Direct Surface with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

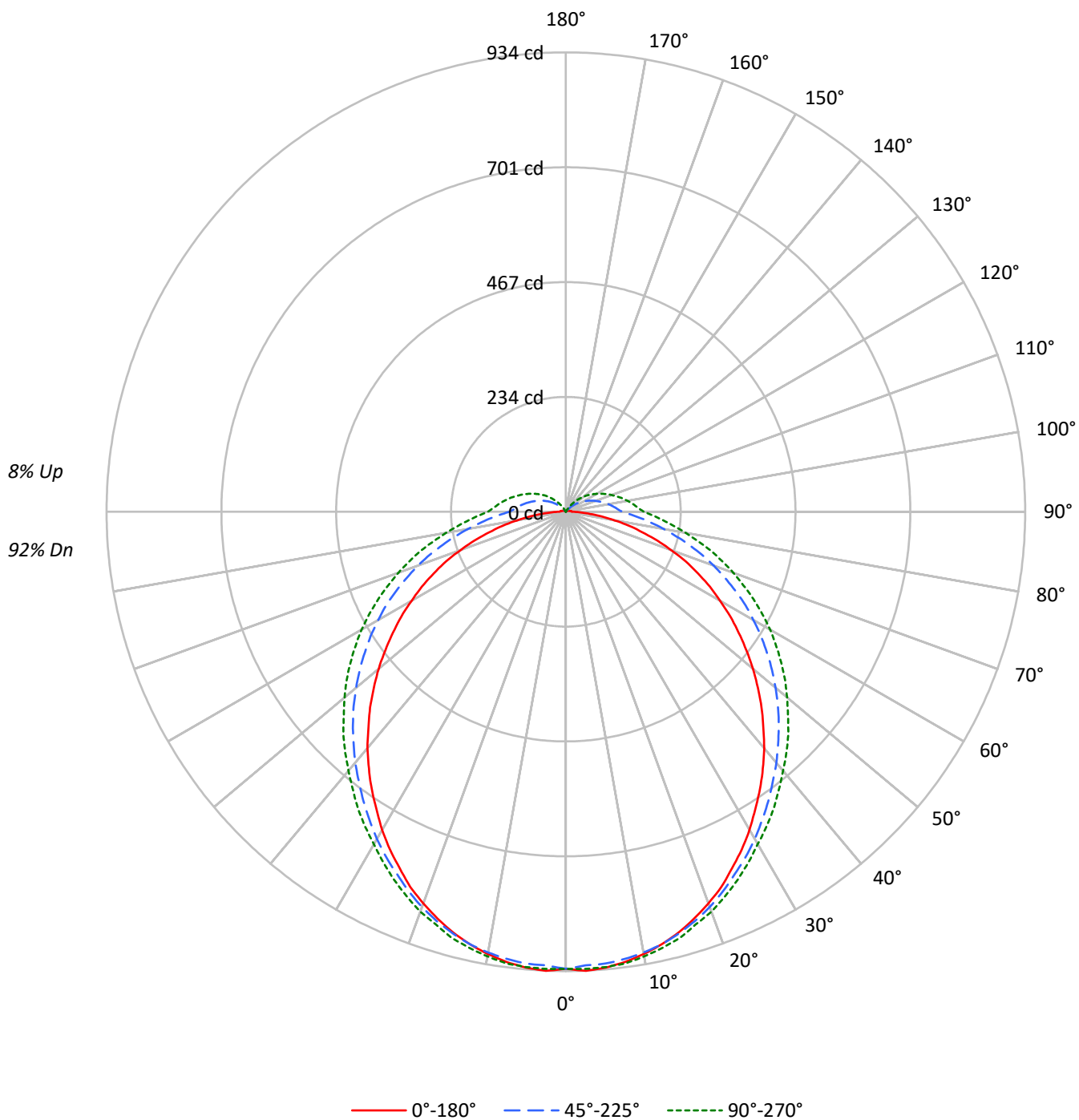
Lumens per Lamp: N/A
Luminaire Lumens: 3123.0 lumens
Efficiency: N/A
Efficacy: 87.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1037377

CATALOG NUMBER: S123DS-B775DB50-4F0-XX-W2A-D

Luminous Intensity Polar Plot



TEST NUMBER: P1037377

CATALOG NUMBER: S123DS-B775DB50-4F0-XX-W2A-D

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	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94
1	105	100	95	90	102	97	92	88	91	87	84	85	82	80	80	78	76
2	95	86	79	72	92	83	77	71	79	73	68	74	69	65	70	66	63
3	86	75	67	60	83	73	65	59	69	62	56	65	59	54	61	56	52
4	79	66	57	50	76	64	56	49	61	54	48	57	51	46	54	49	45
5	72	59	50	43	70	58	49	42	54	47	41	52	45	40	49	43	39
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	44	38	34
7	62	48	39	33	60	47	38	32	45	37	32	42	36	31	40	35	30
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	28	24
10	50	37	29	24	49	36	29	24	35	28	23	33	27	23	32	26	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10002	10002	10002
5°	10052	9964	10040
10°	9980	9946	10035
15°	9870	9892	9995
20°	9706	9798	9914
25°	9498	9653	9810
30°	9285	9549	9700
35°	9044	9431	9683
40°	8819	9360	9657
45°	8567	9322	9738
50°	8323	9322	9831
55°	8055	9364	10031
60°	7802	9479	10329
65°	7554	9694	10725
70°	7169	10068	11405
75°	6692	10776	12672
80°	6211	12552	15311
85°	6126	19007	24503

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 43703 cd/sqm

TEST NUMBER: P1037377

CATALOG NUMBER: S123DS-B775DB50-4F0-XX-W2A-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.2	2.8
10°-20°	251.3	8.0
20°-30°	375.8	12.0
30°-40°	448.7	14.4
40°-50°	469.4	15.0
50°-60°	440.5	14.1
60°-70°	368.0	11.8
70°-80°	263.1	8.4
80°-90°	156.6	5.0
90°-100°	98.4	3.2
100°-110°	72.3	2.3
110°-120°	48.3	1.5
120°-130°	27.5	0.9
130°-140°	12.3	0.4
140°-150°	2.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	715.2	22.9
0°-40°	1163.9	37.3
0°-60°	2073.9	66.4
0°-90°	2861.5	91.6
90°-120°	219.0	7.0
90°-150°	261.4	8.4
90°-180°	261.0	8.4
0°-180°	3123.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	930	928	922	930	929	88
15°	886	889	888	898	897	250
25°	800	810	813	826	826	369
35°	688	704	718	733	737	430
45°	563	587	612	632	640	434
55°	429	463	499	526	534	384
65°	297	336	381	411	421	293
75°	161	208	259	292	305	172
85°	50	100	154	188	198	51
90°	13	63	114	149	159	9
95°	11	51	100	132	142	9
105°	8	32	76	104	113	8
115°	5	17	54	78	86	5
125°	3	3	32	54	61	3
135°	2	1	12	30	35	2
145°	1	0	0	8	12	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

TEST NUMBER: P1037377

CATALOG NUMBER: S123DS-B775DB50-4F0-XX-W2A-D

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	929.2	929.2	929.2	929.2	929.2
2.5°	934.3	931.3	923.2	931.3	930.3
5°	930.3	928.2	922.2	930.3	929.2
7.5°	923.2	923.2	917.1	927.2	926.2
10°	913.1	915.1	910.0	920.1	918.1
12.5°	900.9	903.9	900.9	910.0	908.0
15°	885.7	888.8	887.7	897.9	896.9
17.5°	867.5	873.6	872.6	881.7	879.6
20°	847.3	853.3	855.4	864.5	865.5
22.5°	826.0	832.1	835.1	847.3	846.2
25°	799.7	809.8	812.8	826.0	826.0
27.5°	774.4	785.5	791.6	802.7	803.7
30°	747.0	760.2	768.3	780.4	780.4
32.5°	716.7	731.9	743.0	756.2	759.2
35°	688.3	704.5	717.7	732.9	736.9
37.5°	658.0	676.2	691.4	708.6	711.6
40°	627.6	645.8	666.1	683.3	687.3
42.5°	594.2	617.5	638.7	658.0	664.0
45°	562.8	587.1	612.4	631.6	639.7
47.5°	529.4	556.7	585.1	606.3	612.4
50°	497.0	525.4	556.7	580.0	587.1
52.5°	462.6	493.0	528.4	552.7	561.8
55°	429.2	462.6	499.0	526.4	534.5
57.5°	396.8	431.2	470.7	498.0	507.1
60°	362.4	398.8	440.3	468.7	479.8
62.5°	330.0	367.4	412.0	440.3	450.5
65°	296.6	336.1	380.6	411.0	421.1
67.5°	263.2	304.7	349.2	382.6	390.7
70°	227.8	271.3	319.9	352.3	362.4
72.5°	195.4	238.9	289.5	322.9	333.0
75°	160.9	208.5	259.1	292.5	304.7
77.5°	131.6	179.2	229.8	265.2	274.3
80°	100.2	149.8	202.5	236.9	247.0
82.5°	72.9	123.5	177.1	211.6	221.7
85°	49.6	100.2	153.9	188.3	198.4
87.5°	30.4	81.0	132.6	167.0	177.1
90°	13.2	62.8	114.4	148.8	158.9
92.5°	12.1	55.7	106.3	139.7	148.8
95°	11.1	50.6	100.2	131.6	141.7
97.5°	10.1	46.6	94.1	124.5	134.6
100°	9.1	41.5	88.1	117.4	127.5
102.5°	8.1	36.4	82.0	110.3	120.5
105°	8.1	32.4	75.9	104.3	113.4
107.5°	7.1	28.3	69.8	97.2	106.3
110°	6.1	24.3	64.8	91.1	99.2



TEST NUMBER: P1037377

CATALOG NUMBER: S123DS-B775DB50-4F0-XX-W2A-D

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.1	20.2	58.7	84.0	93.1
115°	5.1	17.2	53.6	77.9	86.0
117.5°	5.1	13.2	47.6	71.9	80.0
120°	4.0	9.1	42.5	65.8	72.9
122.5°	4.0	6.1	37.5	59.7	66.8
125°	3.0	3.0	32.4	53.6	60.7
127.5°	3.0	2.0	27.3	47.6	54.7
130°	3.0	2.0	22.3	41.5	47.6
132.5°	2.0	2.0	17.2	35.4	42.5
135°	2.0	1.0	12.1	30.4	35.4
137.5°	2.0	1.0	8.1	24.3	29.4
140°	1.0	1.0	4.0	19.2	24.3
142.5°	1.0	0.0	0.0	13.2	18.2
145°	1.0	0.0	0.0	8.1	12.1
147.5°	0.0	0.0	0.0	3.0	7.1
150°	0.0	0.0	0.0	0.0	2.0
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)