

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: P1037374

Luminaire Tested: S123DS-B775DB40-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1037374
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-B775DB40-4F0-XX-W2A-D
Description: Define 3 Direct Surface with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

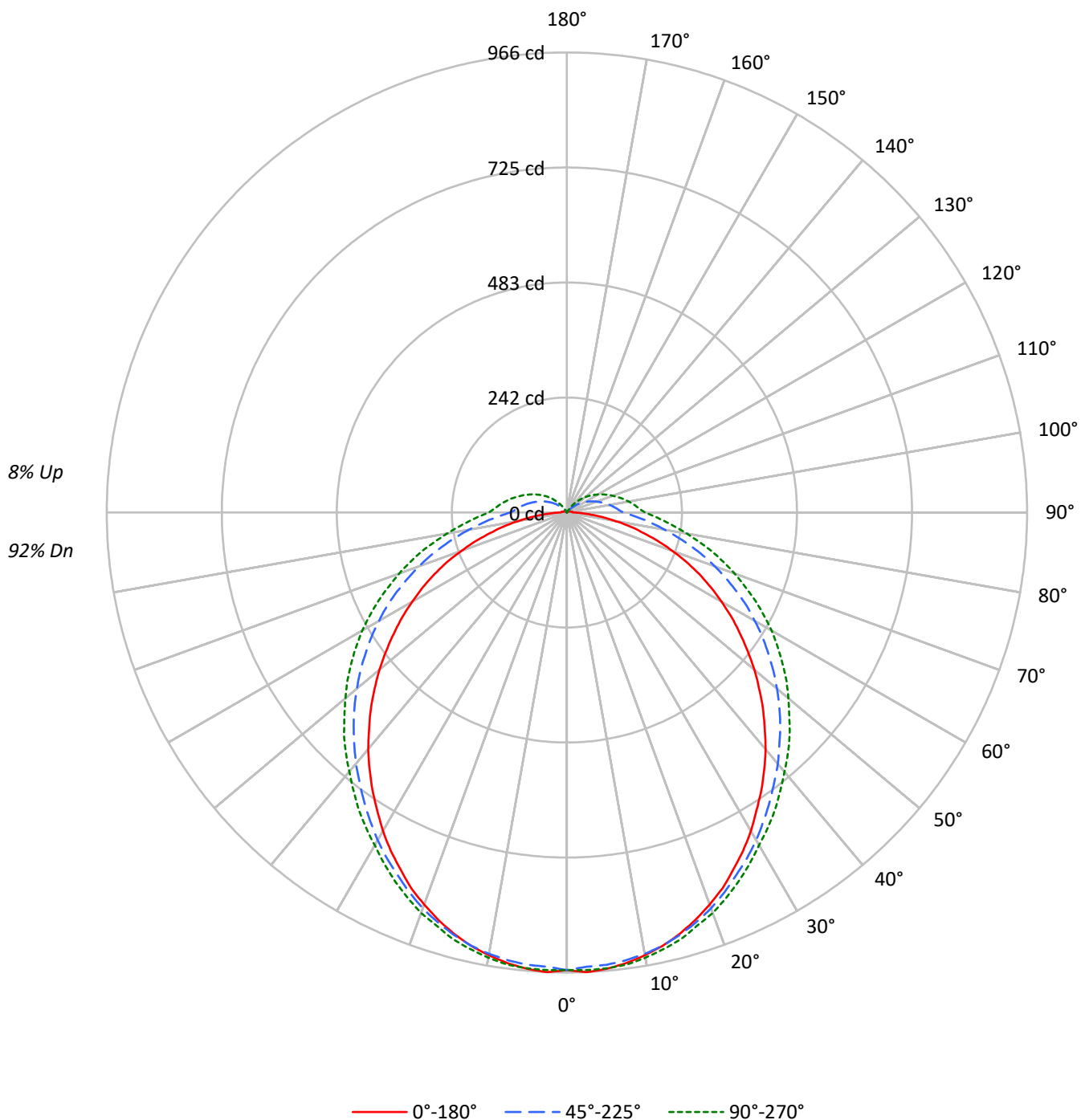
Lumens per Lamp: N/A
Luminaire Lumens: 3229.0 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

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: P1037374

CATALOG NUMBER: S123DS-B775DB40-4F0-XX-W2A-D

Luminous Intensity Polar Plot



TEST NUMBER: P1037374

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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
RCR																	
0	117	117	117	117	113	113	113	113	106	106	106		100	100	100		94
1	105	100	95	90	102	97	92	88	91	87	84		85	82	80		80
2	95	86	79	72	92	83	77	71	79	73	68		74	69	65		70
3	86	75	67	60	83	73	65	59	69	62	56		65	59	54		61
4	79	66	57	50	76	64	56	49	61	54	48		57	51	46		54
5	72	59	50	43	70	58	49	42	54	47	41		52	45	40		49
6	67	53	44	37	64	52	43	37	49	42	36		47	40	35		44
7	62	48	39	33	60	47	38	32	45	37	32		42	36	31		40
8	58	44	35	29	56	43	35	29	41	33	28		39	32	28		37
9	54	40	32	26	52	39	31	26	37	30	25		36	29	25		34
10	50	37	29	24	49	36	29	24	35	28	23		33	27	23		32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10342	10342	10342
5°	10392	10303	10381
10°	10318	10284	10376
15°	10205	10229	10333
20°	10034	10131	10251
25°	9820	9981	10143
30°	9600	9874	10029
35°	9352	9750	10012
40°	9118	9677	9985
45°	8858	9639	10070
50°	8606	9639	10165
55°	8328	9683	10370
60°	8066	9802	10680
65°	7812	10022	11089
70°	7412	10408	11792
75°	6920	11142	13100
80°	6422	12974	15831
85°	6336	19649	25330

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 45208 cd/sqm

TEST NUMBER: P1037374

CATALOG NUMBER: S123DS-B775DB40-4F0-XX-W2A-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.1	2.8
10°-20°	259.8	8.0
20°-30°	388.5	12.0
30°-40°	463.9	14.4
40°-50°	485.4	15.0
50°-60°	455.5	14.1
60°-70°	380.5	11.8
70°-80°	272.0	8.4
80°-90°	161.9	5.0
90°-100°	101.7	3.2
100°-110°	74.8	2.3
110°-120°	49.9	1.5
120°-130°	28.5	0.9
130°-140°	12.8	0.4
140°-150°	2.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	739.5	22.9
0°-40°	1203.4	37.3
0°-60°	2144.3	66.4
0°-90°	2958.6	91.6
90°-120°	226.4	7.0
90°-150°	270.3	8.4
90°-180°	270.0	8.4
0°-180°	3229.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	961	961	961	961	961	
5°	962	960	954	962	961	91
15°	916	919	918	928	927	258
25°	827	837	840	854	854	381
35°	712	728	742	758	762	445
45°	582	607	633	653	662	449
55°	444	478	516	544	553	397
65°	307	348	394	425	435	303
75°	166	216	268	302	315	178
85°	51	104	159	195	205	53
90°	14	65	118	154	164	10
95°	12	52	104	136	146	9
105°	8	34	78	108	117	8
115°	5	18	56	81	89	5
125°	3	3	34	56	63	3
135°	2	1	13	31	37	2
145°	1	0	0	8	13	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: P1037374

CATALOG NUMBER: S123DS-B775DB40-4F0-XX-W2A-D

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	960.8	960.8	960.8	960.8	960.8
2.5°	966.0	962.9	954.5	962.9	961.8
5°	961.8	959.7	953.5	961.8	960.8
7.5°	954.5	954.5	948.2	958.7	957.6
10°	944.0	946.1	940.9	951.4	949.3
12.5°	931.5	934.6	931.5	940.9	938.8
15°	915.8	918.9	917.9	928.3	927.3
17.5°	896.9	903.2	902.2	911.6	909.5
20°	876.0	882.3	884.4	893.8	894.9
22.5°	854.0	860.3	863.5	876.0	875.0
25°	826.8	837.3	840.4	854.0	854.0
27.5°	800.7	812.2	818.4	830.0	831.0
30°	772.4	786.0	794.4	806.9	806.9
32.5°	741.0	756.7	768.2	781.8	785.0
35°	711.7	728.4	742.0	757.7	761.9
37.5°	680.3	699.1	714.8	732.6	735.8
40°	648.9	667.7	688.7	706.5	710.6
42.5°	614.4	638.4	660.4	680.3	686.6
45°	581.9	607.0	633.2	653.1	661.5
47.5°	547.4	575.6	604.9	626.9	633.2
50°	513.9	543.2	575.6	599.7	607.0
52.5°	478.3	509.7	546.3	571.4	580.9
55°	443.8	478.3	516.0	544.2	552.6
57.5°	410.3	445.9	486.7	514.9	524.4
60°	374.7	412.4	455.3	484.6	496.1
62.5°	341.2	379.9	426.0	455.3	465.7
65°	306.7	347.5	393.5	424.9	435.4
67.5°	272.1	315.0	361.1	395.6	404.0
70°	235.5	280.5	330.7	364.2	374.7
72.5°	202.0	247.0	299.3	333.9	344.3
75°	166.4	215.6	267.9	302.5	315.0
77.5°	136.1	185.2	237.6	274.2	283.6
80°	103.6	154.9	209.3	244.9	255.4
82.5°	75.4	127.7	183.2	218.7	229.2
85°	51.3	103.6	159.1	194.7	205.1
87.5°	31.4	83.7	137.1	172.7	183.2
90°	13.6	64.9	118.3	153.9	164.3
92.5°	12.6	57.6	109.9	144.4	153.9
95°	11.5	52.3	103.6	136.1	146.5
97.5°	10.5	48.1	97.3	128.7	139.2
100°	9.4	42.9	91.1	121.4	131.9
102.5°	8.4	37.7	84.8	114.1	124.5
105°	8.4	33.5	78.5	107.8	117.2
107.5°	7.3	29.3	72.2	100.5	109.9
110°	6.3	25.1	67.0	94.2	102.6

TEST NUMBER: P1037374

CATALOG NUMBER: S123DS-B775DB40-4F0-XX-W2A-D

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	6.3	20.9	60.7	86.9	96.3
115°	5.2	17.8	55.5	80.6	89.0
117.5°	5.2	13.6	49.2	74.3	82.7
120°	4.2	9.4	44.0	68.0	75.4
122.5°	4.2	6.3	38.7	61.7	69.1
125°	3.1	3.1	33.5	55.5	62.8
127.5°	3.1	2.1	28.3	49.2	56.5
130°	3.1	2.1	23.0	42.9	49.2
132.5°	2.1	2.1	17.8	36.6	44.0
135°	2.1	1.0	12.6	31.4	36.6
137.5°	2.1	1.0	8.4	25.1	30.4
140°	1.0	1.0	4.2	19.9	25.1
142.5°	1.0	0.0	0.0	13.6	18.8
145°	1.0	0.0	0.0	8.4	12.6
147.5°	0.0	0.0	0.0	3.1	7.3
150°	0.0	0.0	0.0	0.0	2.1
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)