

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: P1000689

Luminaire Tested: SA4XXDIP-B1020D590UB27-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P1000689
REPORT IS A COMBINATION OF REPORTS P995302 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA4XXDIP-B1020D590UB27-4F0-XX-W2A-D
Description: Define 4 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

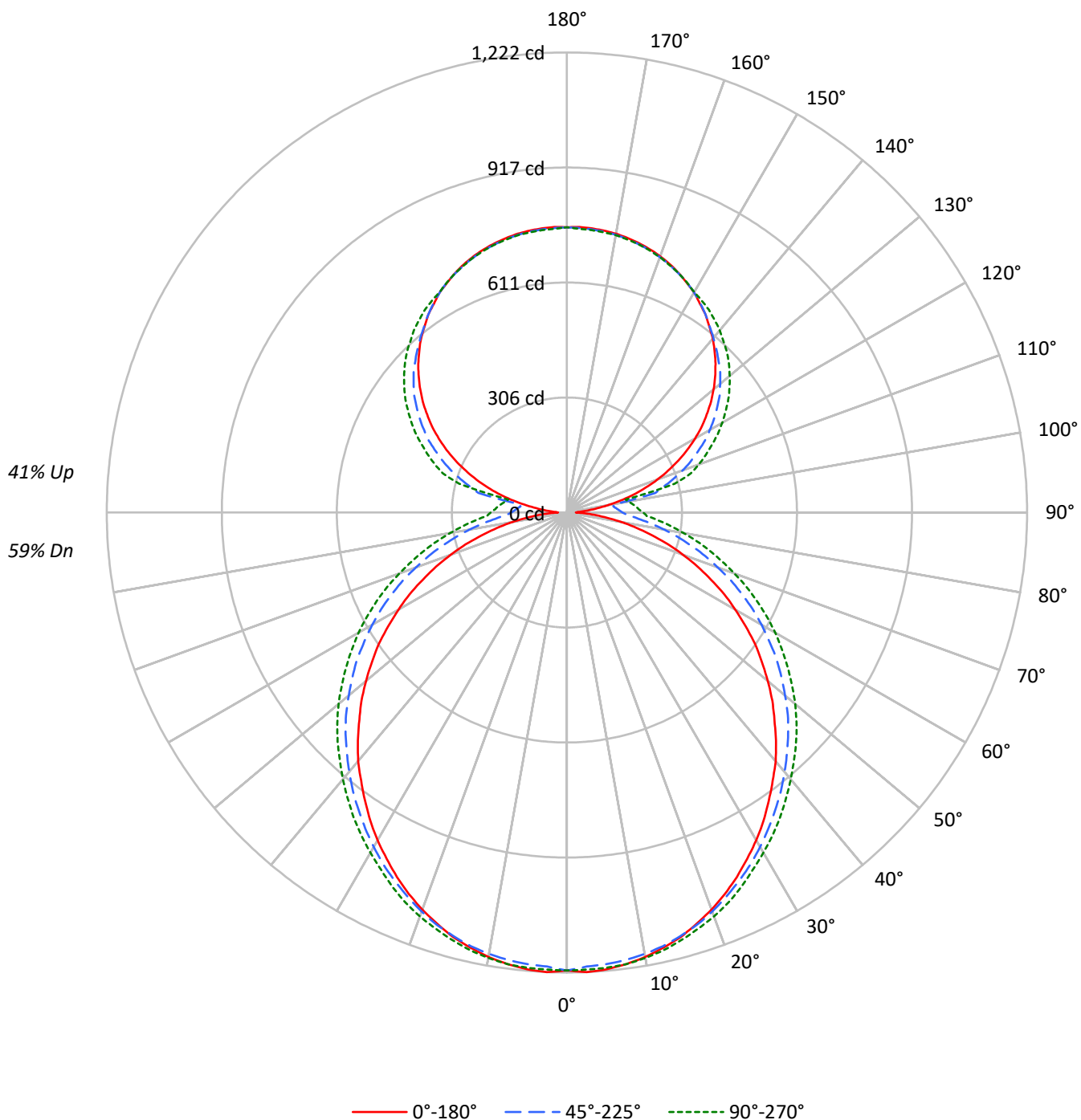
Lumens per Lamp: N/A
Luminaire Lumens: 6493.9 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 62.2
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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64
1	99	94	89	85	92	87	84	80	76	73	70	65	63	61	55	54	52
2	89	81	74	69	83	76	70	65	66	61	57	56	53	50	48	45	43
3	81	71	63	57	75	66	59	54	58	52	47	49	45	42	42	39	36
4	74	63	54	48	69	59	51	45	51	45	40	44	39	35	37	34	31
5	68	56	47	41	63	52	44	39	45	39	34	39	34	30	33	30	26
6	63	50	41	35	58	47	39	33	41	35	30	35	30	26	30	26	23
7	58	45	37	31	54	42	35	29	37	31	26	32	27	23	28	24	20
8	54	41	33	27	50	38	31	26	34	28	23	29	24	21	25	21	18
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	16
10	47	34	27	22	43	32	25	21	28	23	19	25	20	17	22	18	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9921	9921	9921
5°	9948	9663	9680
10°	9884	9472	9445
15°	9791	9259	9181
20°	9654	9027	8923
25°	9499	8772	8646
30°	9333	8519	8363
35°	9144	8261	8111
40°	8992	8012	7851
45°	8768	7780	7620
50°	8577	7515	7378
55°	8379	7260	7098
60°	8072	6942	6834
65°	7734	6601	6517
70°	7324	6209	6151
75°	6752	5776	5802
80°	6108	5332	5436
85°	5254	4887	5140

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 8768 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	1.8
10°-20°	330.3	5.1
20°-30°	499.4	7.7
30°-40°	604.2	9.3
40°-50°	638.7	9.8
50°-60°	601.1	9.3
60°-70°	498.8	7.7
70°-80°	350.0	5.4
80°-90°	198.9	3.1
90°-100°	142.6	2.2
100°-110°	252.6	3.9
110°-120°	374.6	5.8
120°-130°	434.4	6.7
130°-140°	443.7	6.8
140°-150°	404.4	6.2
150°-160°	323.9	5.0
160°-170°	208.9	3.2
170°-180°	72.0	1.1
0°-30°	945.0	14.6
0°-40°	1549.1	23.9
0°-60°	2789.0	42.9
0°-90°	3836.8	59.1
90°-120°	769.9	11.9
90°-150°	2052.4	31.6
90°-180°	2657.0	40.9
0°-180°	6493.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1217	1217	1217	1217	1217	
5°	1218	1214	1204	1215	1214	116
15°	1168	1169	1165	1177	1176	329
25°	1068	1076	1080	1095	1097	492
35°	935	951	965	984	988	585
45°	779	805	831	854	861	602
55°	610	639	680	707	715	544
65°	422	466	512	546	557	419
75°	234	285	342	380	392	249
85°	72	129	191	232	245	75
90°	24	84	147	190	202	17
95°	49	75	131	171	184	53
105°	183	214	267	306	296	192
115°	327	341	384	415	424	322
125°	453	454	487	514	523	405
135°	558	558	569	592	602	430
145°	642	642	642	651	657	401
155°	702	703	701	703	702	324
165°	741	738	738	742	737	209
175°	758	754	755	760	753	72
180°	758	758	758	758	758	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1216.6	1216.6	1216.6	1216.6	1216.6
2.5°	1222.1	1218.0	1207.1	1216.6	1215.3
5°	1218.0	1213.9	1204.4	1215.3	1213.9
7.5°	1209.8	1207.1	1198.9	1211.2	1209.8
10°	1198.9	1197.6	1190.7	1203.0	1201.6
12.5°	1183.9	1183.9	1179.8	1190.7	1190.7
15°	1167.6	1168.9	1164.9	1177.1	1175.8
17.5°	1145.8	1149.9	1148.5	1160.8	1159.4
20°	1122.6	1126.7	1128.1	1141.7	1141.7
22.5°	1096.7	1102.2	1104.9	1118.5	1121.3
25°	1068.1	1076.3	1080.4	1095.4	1096.7
27.5°	1036.8	1049.1	1054.5	1068.1	1069.5
30°	1005.5	1016.4	1025.9	1040.9	1043.6
32.5°	971.4	985.0	995.9	1013.6	1016.4
35°	934.6	951.0	964.6	983.7	987.7
37.5°	897.8	916.9	933.3	952.3	956.4
40°	862.4	880.1	899.2	919.6	925.1
42.5°	821.5	842.0	865.1	888.3	892.4
45°	779.3	805.2	831.1	854.2	861.0
47.5°	739.8	765.7	795.6	818.8	827.0
50°	696.2	726.2	756.1	783.4	791.6
52.5°	652.6	682.6	718.0	745.2	753.4
55°	610.4	639.0	679.8	707.1	715.3
57.5°	562.7	598.1	637.6	670.3	677.1
60°	516.4	551.8	596.7	628.1	639.0
62.5°	471.4	510.9	555.9	587.2	598.1
65°	422.3	465.9	512.3	546.3	557.2
67.5°	376.0	422.3	471.4	505.5	516.4
70°	328.3	374.7	426.4	463.2	472.8
72.5°	282.0	329.7	385.6	421.0	431.9
75°	234.3	284.7	342.0	380.1	392.4
77.5°	189.4	242.5	302.5	340.6	354.2
80°	148.5	203.0	262.9	303.8	314.7
82.5°	107.6	164.9	224.8	267.0	279.3
85°	72.2	129.4	190.7	231.6	245.2
87.5°	45.0	100.8	160.8	200.3	212.5
90°	23.5	84.2	147.4	190.3	202.3
92.5°	28.9	75.5	138.6	180.2	191.1
95°	48.9	74.6	131.0	171.2	184.0
97.5°	75.8	127.9	124.2	162.4	175.3
100°	107.9	153.5	128.4	155.6	165.8
102.5°	145.3	182.1	240.6	148.6	159.5
105°	182.9	213.5	266.7	305.9	296.4
107.5°	219.7	244.5	296.2	333.1	344.9
110°	255.7	276.5	327.6	360.0	372.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	290.6	310.4	356.4	385.8	399.0
115°	326.7	340.6	383.6	414.7	424.2
117.5°	360.1	370.5	413.1	441.1	452.0
120°	392.7	399.1	438.0	466.4	476.2
122.5°	424.4	425.6	463.5	491.3	499.7
125°	453.1	454.0	486.9	514.5	523.3
127.5°	482.0	481.2	511.3	535.3	544.2
130°	508.4	507.6	531.1	556.2	564.4
132.5°	533.9	533.7	552.3	576.0	583.6
135°	558.0	557.5	569.3	592.3	601.5
137.5°	580.7	579.4	587.6	609.2	615.5
140°	602.8	602.6	605.1	624.5	631.8
142.5°	621.3	623.6	622.8	638.9	644.3
145°	641.7	642.0	642.0	650.8	657.3
147.5°	657.6	659.6	659.0	661.0	667.0
150°	675.2	676.0	675.5	675.5	676.0
152.5°	688.5	690.2	689.1	690.2	689.6
155°	702.1	702.7	701.0	703.2	701.5
157.5°	714.0	714.0	711.7	714.6	711.7
160°	724.2	722.5	721.9	725.3	721.9
162.5°	733.3	731.0	730.4	733.8	729.9
165°	740.6	737.8	737.8	742.3	737.2
167.5°	746.9	744.0	743.5	748.6	742.9
170°	752.0	748.6	749.1	753.7	748.0
172.5°	755.4	752.0	752.5	757.1	750.8
175°	757.6	754.2	754.8	759.9	753.1
177.5°	759.3	755.4	756.5	761.0	754.2
180°	757.6	757.6	757.6	757.6	757.6

(END OF REPORT)