

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P998975

Luminaire Tested: SA2XXDIP-B865D1080UB27-4F0-XX-W2A-D

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998975
REPORT IS A COMBINATION OF REPORTS P984721 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B865D1080UB27-4F0-XX-W2A-D
Description: Define 2 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

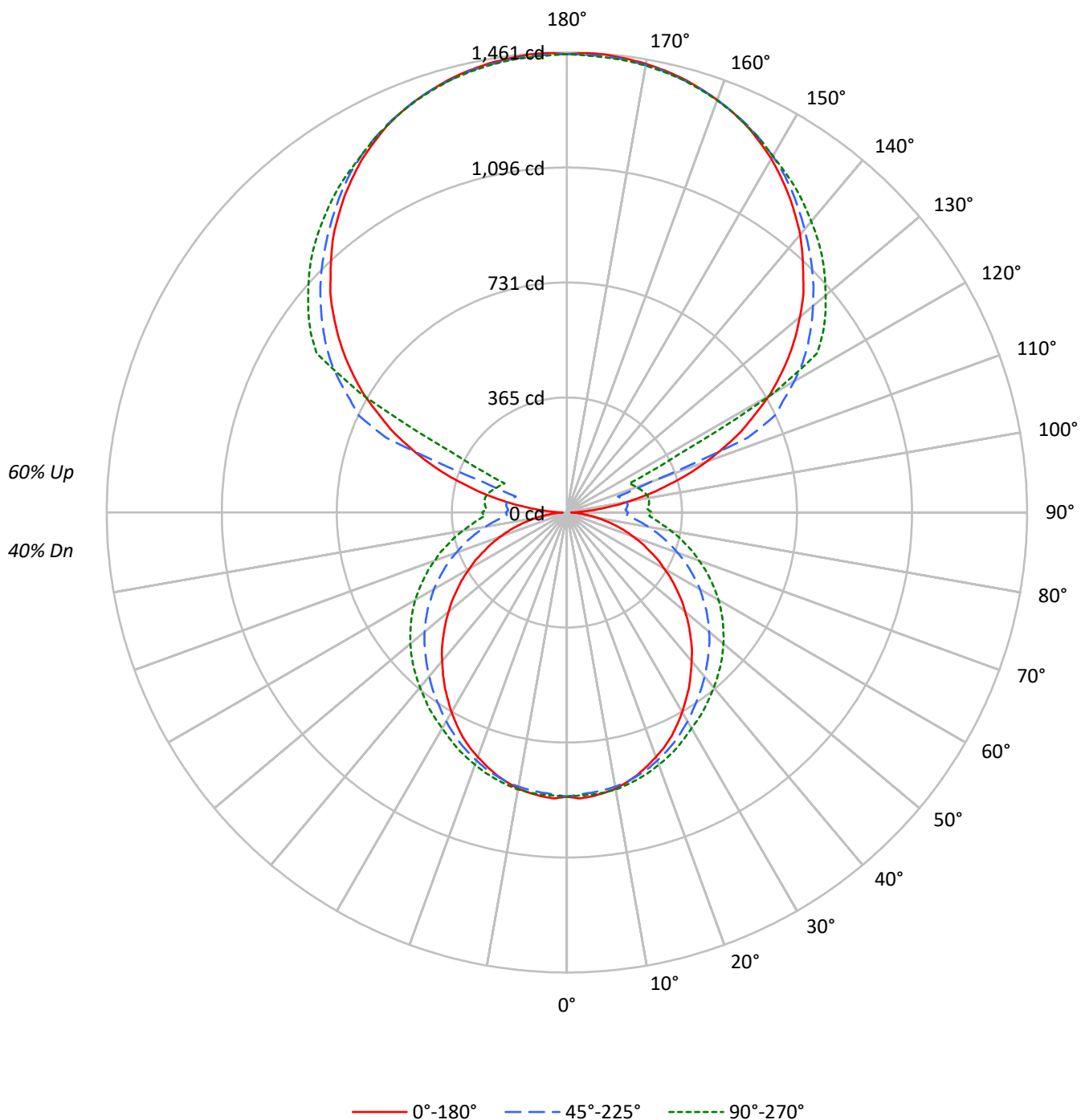
Lumens per Lamp: N/A
Luminaire Lumens: 7713.0 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 81.8
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	105	105	105	105	95	95	95	95	78	78	78	61	61	61	47	47	47
1	94	90	85	81	85	81	78	74	66	64	61	52	50	49	39	38	37
2	85	77	71	65	77	70	65	60	57	53	50	45	42	40	34	32	30
3	78	68	60	54	70	62	55	50	50	45	41	39	36	33	30	27	25
4	71	60	51	45	64	54	47	42	44	39	35	35	31	28	26	24	21
5	65	53	45	38	58	48	41	35	39	34	30	31	27	24	24	21	18
6	59	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16
7	55	42	34	29	50	39	32	27	32	26	22	25	21	18	19	16	14
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13
9	47	35	27	22	43	32	25	21	26	21	18	21	17	14	16	13	11
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14283	14283	14283
5°	14349	13674	13596
10°	14252	13200	13008
15°	14050	12710	12404
20°	13797	12196	11829
25°	13546	11704	11310
30°	13195	11202	10795
35°	12840	10720	10417
40°	12465	10303	10041
45°	12110	9925	9714
50°	11727	9576	9390
55°	11325	9205	9062
60°	10833	8819	8716
65°	10320	8376	8318
70°	9740	7899	7888
75°	9001	7423	7484
80°	7832	6928	7066
85°	6653	6461	6704

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12110 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.5	1.1
10°-20°	245.3	3.2
20°-30°	371.7	4.8
30°-40°	452.7	5.9
40°-50°	487.0	6.3
50°-60°	473.0	6.1
60°-70°	413.1	5.4
70°-80°	317.9	4.1
80°-90°	215.5	2.8
90°-100°	194.9	2.5
100°-110°	286.2	3.7
110°-120°	545.4	7.1
120°-130°	826.5	10.7
130°-140°	852.6	11.1
140°-150°	779.8	10.1
150°-160°	624.7	8.1
160°-170°	402.5	5.2
170°-180°	138.5	1.8
0°-30°	702.6	9.1
0°-40°	1155.3	15.0
0°-60°	2115.3	27.4
0°-90°	3061.7	39.7
90°-120°	1026.5	13.3
90°-150°	3485.5	45.2
90°-180°	4651.0	60.3
0°-180°	7713.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	902	902	902	902	902	
5°	905	901	893	901	900	86
15°	863	866	866	878	876	243
25°	785	794	806	821	825	361
35°	676	698	723	752	761	423
45°	554	590	636	676	689	428
55°	425	472	540	587	604	380
65°	290	354	432	485	502	288
75°	161	234	318	374	391	170
85°	47	128	212	267	285	50
90°	14	102	194	251	269	13
95°	79	106	192	246	261	89
105°	327	396	177	234	253	350
115°	611	643	728	280	218	601
125°	859	873	934	977	992	767
135°	1061	1078	1100	1138	1147	820
145°	1229	1228	1246	1261	1262	769
155°	1354	1344	1357	1363	1354	624
165°	1426	1420	1423	1430	1423	403
175°	1459	1451	1454	1461	1450	139
180°	1456	1456	1456	1456	1456	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	902.3	902.3	902.3	902.3	902.3
2.5°	908.9	905.0	895.8	902.3	899.7
5°	905.0	901.0	893.2	901.0	899.7
7.5°	898.4	895.8	889.3	898.4	897.1
10°	890.6	888.0	884.0	894.5	893.2
12.5°	877.5	878.8	876.2	886.6	885.3
15°	863.1	865.7	865.7	877.5	876.2
17.5°	844.8	850.0	854.0	865.7	865.7
20°	826.5	833.0	838.3	852.6	852.6
22.5°	806.9	814.7	822.6	836.9	839.6
25°	784.6	793.8	805.6	821.3	825.2
27.5°	758.5	772.9	785.9	805.6	808.2
30°	732.3	749.3	766.3	787.3	791.2
32.5°	703.6	723.2	744.1	768.9	776.8
35°	676.1	698.3	723.2	751.9	761.1
37.5°	646.0	670.9	702.3	733.6	742.8
40°	615.9	644.7	680.0	714.0	725.8
42.5°	587.2	615.9	657.8	695.7	707.5
45°	554.5	589.8	635.6	676.1	689.2
47.5°	523.1	561.0	613.3	655.2	669.6
50°	490.4	530.9	589.8	634.3	648.6
52.5°	459.0	502.2	564.9	610.7	626.4
55°	425.0	472.1	540.1	587.2	604.2
57.5°	392.3	444.6	512.6	563.6	580.6
60°	357.0	413.2	487.8	537.5	555.8
62.5°	325.6	384.5	459.0	512.6	529.6
65°	290.3	354.4	431.6	485.2	502.2
67.5°	258.9	325.6	404.1	457.7	476.0
70°	224.9	292.9	374.0	430.2	445.9
72.5°	193.5	264.2	346.5	401.5	421.1
75°	160.9	234.1	317.8	374.0	391.0
77.5°	129.5	205.3	290.3	346.5	364.9
80°	98.1	177.9	262.9	317.8	336.1
82.5°	71.9	150.4	236.7	291.6	308.6
85°	47.1	128.2	211.9	266.8	285.1
87.5°	28.8	107.2	190.9	244.5	261.5
90°	14.2	101.5	193.7	251.2	269.0
92.5°	38.1	103.2	186.2	239.3	255.9
95°	79.0	105.6	191.5	246.4	261.1
97.5°	132.4	102.3	194.9	246.5	263.2
100°	195.6	99.6	190.8	247.7	264.1
102.5°	263.7	304.8	183.7	242.4	260.0
105°	326.7	396.3	176.8	234.0	252.6
107.5°	401.5	459.2	169.7	225.7	244.4
110°	471.8	520.1	279.8	216.3	234.9

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	539.2	579.2	621.4	209.3	226.8
115°	610.8	643.1	728.4	279.9	218.5
117.5°	671.7	703.3	776.1	664.6	401.8
120°	741.2	762.3	833.6	882.8	755.0
122.5°	800.2	818.3	887.8	929.4	942.3
125°	858.9	872.6	934.5	977.2	992.1
127.5°	913.7	927.1	978.2	1021.5	1034.3
130°	965.3	980.9	1019.9	1062.9	1072.3
132.5°	1018.0	1030.4	1061.5	1101.1	1110.6
135°	1060.9	1077.8	1100.3	1138.3	1146.7
137.5°	1107.3	1119.9	1136.9	1172.4	1178.3
140°	1152.5	1159.7	1173.9	1204.2	1206.9
142.5°	1190.5	1196.5	1210.2	1234.4	1235.6
145°	1229.2	1228.1	1246.0	1261.2	1262.5
147.5°	1263.9	1260.8	1278.7	1285.3	1284.9
150°	1297.7	1290.3	1307.1	1313.5	1308.2
152.5°	1326.1	1317.7	1333.5	1339.8	1332.4
155°	1353.5	1344.0	1356.6	1363.0	1354.5
157.5°	1375.6	1367.2	1376.6	1384.0	1375.6
160°	1394.6	1388.2	1394.6	1400.9	1393.5
162.5°	1411.4	1405.1	1410.4	1417.7	1408.2
165°	1426.2	1419.8	1423.0	1430.4	1423.0
167.5°	1437.7	1431.4	1434.6	1442.0	1432.5
170°	1447.2	1440.9	1443.0	1450.4	1440.9
172.5°	1453.5	1447.2	1449.3	1456.7	1447.2
175°	1458.8	1451.4	1453.5	1460.9	1450.4
177.5°	1460.9	1453.5	1454.6	1462.0	1452.5
180°	1455.6	1455.6	1455.6	1455.6	1455.6

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	13.43	14.24	14.46	15.29	16.69	16.50	17.32	17.54	18.36	19.77
	3H	14.89	15.62	15.93	16.67	18.10	19.09	19.82	20.13	20.88	22.30
	4H	15.36	16.06	16.41	17.11	18.55	20.34	21.04	21.39	22.10	23.53
	6H	15.64	16.29	16.70	17.35	18.79	21.64	22.28	22.70	23.34	24.79
	8H	15.70	16.32	16.77	17.39	18.83	22.29	22.91	23.36	23.99	25.43
	12H	15.71	16.30	16.79	17.37	18.84	23.02	23.60	24.09	24.67	26.14
4H	2H	14.47	15.17	15.53	16.23	17.66	16.83	17.53	17.89	18.58	20.02
	3H	16.18	16.77	17.24	17.85	19.30	19.62	20.21	20.68	21.29	22.74
	4H	16.80	17.34	17.87	18.42	19.88	21.03	21.58	22.10	22.65	24.12
	6H	17.21	17.68	18.29	18.78	20.24	22.50	22.97	23.58	24.07	25.53
	8H	17.32	17.76	18.40	18.85	20.33	23.25	23.70	24.33	24.78	26.26
	12H	17.36	17.76	18.46	18.87	20.35	24.08	24.48	25.18	25.58	27.07
8H	4H	17.58	18.03	18.67	19.12	20.59	21.17	21.61	22.25	22.70	24.18
	6H	18.22	18.59	19.32	19.72	21.19	22.80	23.17	23.90	24.30	25.77
	8H	18.44	18.77	19.55	19.88	21.37	23.69	24.02	24.80	25.13	26.62
	12H	18.57	18.86	19.68	19.97	21.50	24.68	24.97	25.79	26.08	27.61
12H	4H	17.78	18.18	18.88	19.29	20.77	21.14	21.55	22.24	22.65	24.13
	6H	18.55	18.88	19.66	19.99	21.48	22.82	23.15	23.93	24.26	25.76
	8H	18.85	19.14	19.97	20.25	21.78	23.75	24.04	24.86	25.15	26.68