

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: P999049

Luminaire Tested: SA2XXDIP-B865D330UB2750-4F0-XX-W2A-F_3000K

Issue Date: 5/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P999049
REPORT IS A COMBINATION OF REPORTS P984798 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B865D330UB2750-4F0-XX-W2A-F_3000K
Description: Define 2 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

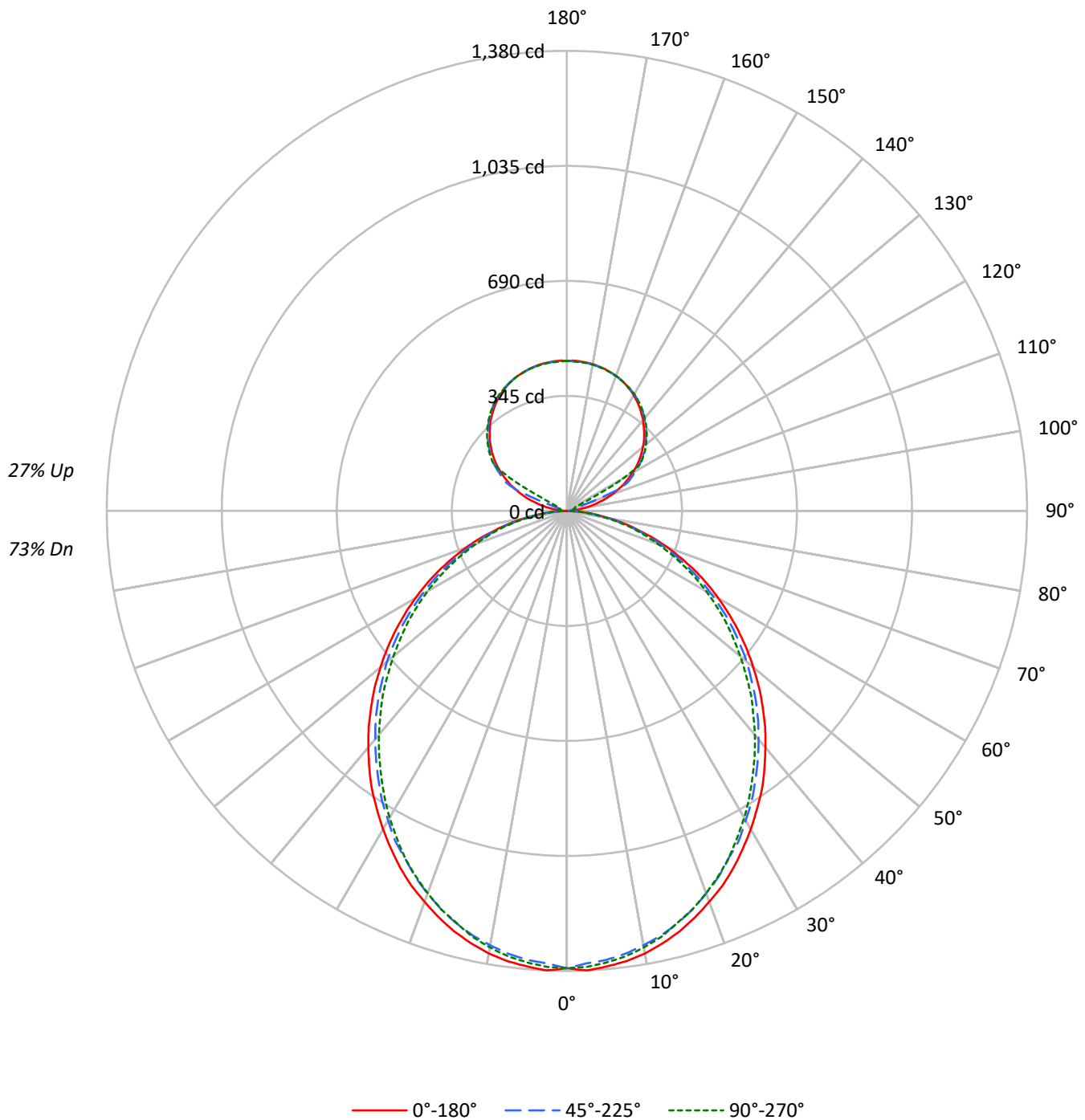
Lumens per Lamp: N/A
Luminaire Lumens: 4809.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 56.1
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	113	113	113	113	107	107	107	107	96	96	96	86	86	86	77	77	77
1	103	98	94	91	97	93	90	87	84	82	79	76	74	72	68	66	65
2	94	86	80	74	89	82	76	71	74	69	65	67	63	60	60	57	55
3	86	76	68	62	81	72	65	60	65	60	55	59	55	51	53	50	47
4	78	67	59	53	74	64	56	51	58	52	47	53	48	44	47	44	40
5	72	60	51	45	68	57	49	44	52	46	41	47	42	38	43	39	35
6	66	54	45	39	63	52	44	38	47	41	36	43	37	33	39	34	31
7	62	49	41	35	58	47	39	34	43	36	32	39	34	30	36	31	28
8	57	44	36	31	54	43	35	30	39	33	28	36	30	26	33	28	25
9	53	41	33	28	51	39	32	27	36	30	25	33	28	24	30	26	22
10	50	38	30	25	47	36	29	24	33	27	23	31	25	22	28	24	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21715	21715	21715
5°	21750	20698	20551
10°	21572	19755	19363
15°	21257	18804	18112
20°	20830	17770	16928
25°	20403	16691	15747
30°	19868	15677	14505
35°	19364	14605	13287
40°	18739	13549	12135
45°	18121	12501	11007
50°	17443	11436	9834
55°	16728	10296	8724
60°	15931	9062	7571
65°	15052	7808	6357
70°	13936	6435	5134
75°	12396	4961	3964
80°	10531	3370	2550
85°	7642	1567	1086

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 18121 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.1	2.7
10°-20°	363.3	7.6
20°-30°	533.8	11.1
30°-40°	620.0	12.9
40°-50°	619.2	12.9
50°-60°	540.0	11.2
60°-70°	399.1	8.3
70°-80°	225.8	4.7
80°-90°	60.4	1.3
90°-100°	14.8	0.3
100°-110°	55.3	1.1
110°-120°	146.6	3.0
120°-130°	243.1	5.1
130°-140°	258.3	5.4
140°-150°	240.0	5.0
150°-160°	193.0	4.0
160°-170°	124.3	2.6
170°-180°	42.8	0.9
0°-30°	1026.2	21.3
0°-40°	1646.2	34.2
0°-60°	2805.4	58.3
0°-90°	3490.8	72.6
90°-120°	216.7	4.5
90°-150°	958.1	19.9
90°-180°	1318.0	27.4
0°-180°	4809.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1372	1372	1372	1372	1372	
5°	1372	1366	1352	1362	1360	130
15°	1306	1298	1281	1286	1279	368
25°	1182	1171	1149	1152	1149	544
35°	1020	1006	985	977	971	637
45°	830	820	801	786	781	640
55°	628	620	604	588	582	561
65°	423	416	402	390	384	419
75°	222	219	212	204	207	236
85°	54	53	51	48	46	60
90°	0	4	6	8	9	4
95°	21	10	13	14	14	25
105°	99	109	20	23	25	106
115°	187	193	201	50	27	184
125°	264	269	275	277	278	236
135°	327	332	335	339	338	253
145°	380	379	385	387	386	237
155°	418	415	419	421	418	193
165°	440	439	440	442	440	124
175°	451	448	449	451	448	43
180°	450	450	450	450	450	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1371.8	1371.8	1371.8	1371.8	1371.8
2.5°	1379.7	1373.1	1358.6	1371.8	1369.1
5°	1371.8	1366.5	1352.0	1362.5	1359.9
7.5°	1362.5	1354.6	1340.1	1350.7	1348.0
10°	1348.0	1338.8	1323.0	1333.5	1329.6
12.5°	1328.2	1320.3	1304.5	1311.1	1308.5
15°	1305.8	1297.9	1280.8	1286.0	1279.4
17.5°	1278.1	1270.2	1253.1	1259.7	1253.1
20°	1247.8	1239.9	1221.4	1225.4	1220.1
22.5°	1217.4	1205.6	1188.4	1188.4	1185.8
25°	1181.8	1171.3	1148.9	1151.5	1148.9
27.5°	1142.3	1133.0	1115.9	1111.9	1105.3
30°	1102.7	1092.1	1072.4	1068.4	1063.1
32.5°	1060.5	1052.6	1031.5	1023.6	1018.3
35°	1019.6	1006.4	985.3	977.4	970.8
37.5°	973.4	961.6	940.5	931.2	924.6
40°	925.9	915.4	894.3	882.4	877.1
42.5°	879.8	869.2	848.1	834.9	827.0
45°	829.7	820.4	800.6	786.1	780.9
47.5°	780.9	771.6	750.5	736.0	728.1
50°	729.4	722.8	704.4	685.9	679.3
52.5°	679.3	670.1	652.9	638.4	629.2
55°	627.8	619.9	604.1	588.3	581.7
57.5°	576.4	569.8	552.7	536.8	531.6
60°	525.0	519.7	501.2	486.7	482.8
62.5°	474.8	465.6	452.4	439.2	434.0
65°	423.4	415.5	402.3	390.4	383.8
67.5°	370.6	364.0	352.2	342.9	337.7
70°	321.8	316.6	304.7	295.5	290.2
72.5°	271.7	266.4	259.8	250.6	246.7
75°	221.6	219.0	212.4	204.4	207.1
77.5°	176.7	171.5	168.8	164.9	160.9
80°	131.9	130.6	127.9	124.0	121.3
82.5°	89.7	89.7	88.4	83.1	83.1
85°	54.1	52.8	51.4	47.5	46.2
87.5°	23.7	21.1	18.5	14.5	13.2
90°	0.3	3.9	6.5	8.1	8.8
92.5°	8.1	6.8	7.8	8.5	8.8
95°	21.1	10.4	12.7	14.3	14.0
97.5°	38.1	11.4	16.6	17.6	17.9
100°	57.6	13.0	18.5	21.1	21.8
102.5°	79.1	78.4	19.2	22.8	23.8
105°	98.9	108.7	19.8	23.4	24.7
107.5°	122.0	130.1	20.5	24.1	25.4
110°	144.1	151.0	56.9	24.4	25.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	165.0	170.8	165.3	25.1	26.0
115°	187.1	192.6	200.7	50.1	26.7
117.5°	206.3	212.8	218.3	171.8	86.5
120°	227.8	232.6	238.5	242.4	198.5
122.5°	246.0	251.2	257.7	259.6	260.0
125°	264.5	268.7	274.9	277.2	278.2
127.5°	281.4	286.0	290.9	294.1	294.5
130°	297.4	302.6	306.2	309.7	309.4
132.5°	313.6	317.9	321.5	324.4	324.1
135°	327.3	332.5	335.4	338.7	338.0
137.5°	341.6	345.5	348.8	352.0	351.1
140°	355.6	358.2	361.8	364.7	363.1
142.5°	367.3	369.6	373.8	376.4	374.8
145°	379.7	379.4	384.9	387.2	385.6
147.5°	390.4	389.5	395.0	396.6	395.3
150°	400.8	398.6	403.8	405.7	404.1
152.5°	409.6	407.0	411.9	413.9	411.6
155°	418.1	415.2	419.1	421.0	418.4
157.5°	424.9	422.3	425.2	427.5	424.9
160°	430.8	428.8	430.8	432.7	430.5
162.5°	436.0	434.0	435.7	437.9	435.0
165°	440.5	438.6	439.6	441.8	439.6
167.5°	444.1	442.2	443.1	445.4	442.5
170°	447.0	445.1	445.7	448.0	445.1
172.5°	449.0	447.0	447.7	450.0	447.0
175°	450.6	448.3	449.0	451.3	448.0
177.5°	451.3	449.0	449.3	451.6	448.7
180°	449.6	449.6	449.6	449.6	449.6

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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	17.80	18.90	18.53	19.66	20.57	18.58	19.69	19.31	20.44	21.35
	3H	19.15	20.15	19.90	20.91	21.85	20.22	21.22	20.97	21.99	22.92
	4H	19.57	20.51	20.33	21.28	22.23	20.82	21.77	21.59	22.54	23.49
	6H	19.80	20.67	20.58	21.45	22.42	21.24	22.11	22.02	22.89	23.86
	8H	19.84	20.66	20.63	21.47	22.43	21.36	22.18	22.15	22.99	23.95
	12H	19.84	20.63	20.63	21.42	22.42	21.41	22.20	22.21	23.00	23.99
4H	2H	18.29	19.23	19.06	20.01	20.96	18.94	19.88	19.71	20.65	21.60
	3H	19.83	20.62	20.62	21.43	22.40	20.74	21.52	21.52	22.34	23.30
	4H	20.35	21.06	21.15	21.87	22.87	21.43	22.15	22.23	22.96	23.95
	6H	20.67	21.29	21.48	22.12	23.12	21.94	22.56	22.76	23.40	24.40
	8H	20.73	21.31	21.55	22.14	23.15	22.09	22.67	22.91	23.50	24.51
	12H	20.74	21.26	21.58	22.11	23.13	22.16	22.68	23.00	23.54	24.56
8H	4H	20.54	21.12	21.36	21.95	22.97	21.54	22.12	22.36	22.95	23.96
	6H	20.94	21.42	21.79	22.29	23.31	22.12	22.60	22.96	23.47	24.48
	8H	21.04	21.47	21.90	22.34	23.37	22.31	22.73	23.17	23.60	24.63
	12H	21.09	21.46	21.95	22.32	23.41	22.42	22.79	23.28	23.65	24.74
12H	4H	20.54	21.06	21.38	21.91	22.93	21.51	22.03	22.35	22.89	23.90
	6H	20.96	21.39	21.82	22.25	23.29	22.11	22.54	22.97	23.41	24.44
	8H	21.08	21.46	21.94	22.32	23.41	22.32	22.69	23.18	23.55	24.64