

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: P998782

Luminaire Tested: SA2XXDIP-B675D330UB40-4F0-XX-W2A-F4

Issue Date: 5/6/2025

Test Information

Test Method: LM-79-2019
Report Number: P998782
REPORT IS A COMBINATION OF REPORTS P984528 AND P1007351
Test Lab: INNOVATION CENTER
Issue Date: 5/6/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: SA2XXDIP-B675D330UB40-4F0-XX-W2A-F4
Description: Define 2 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

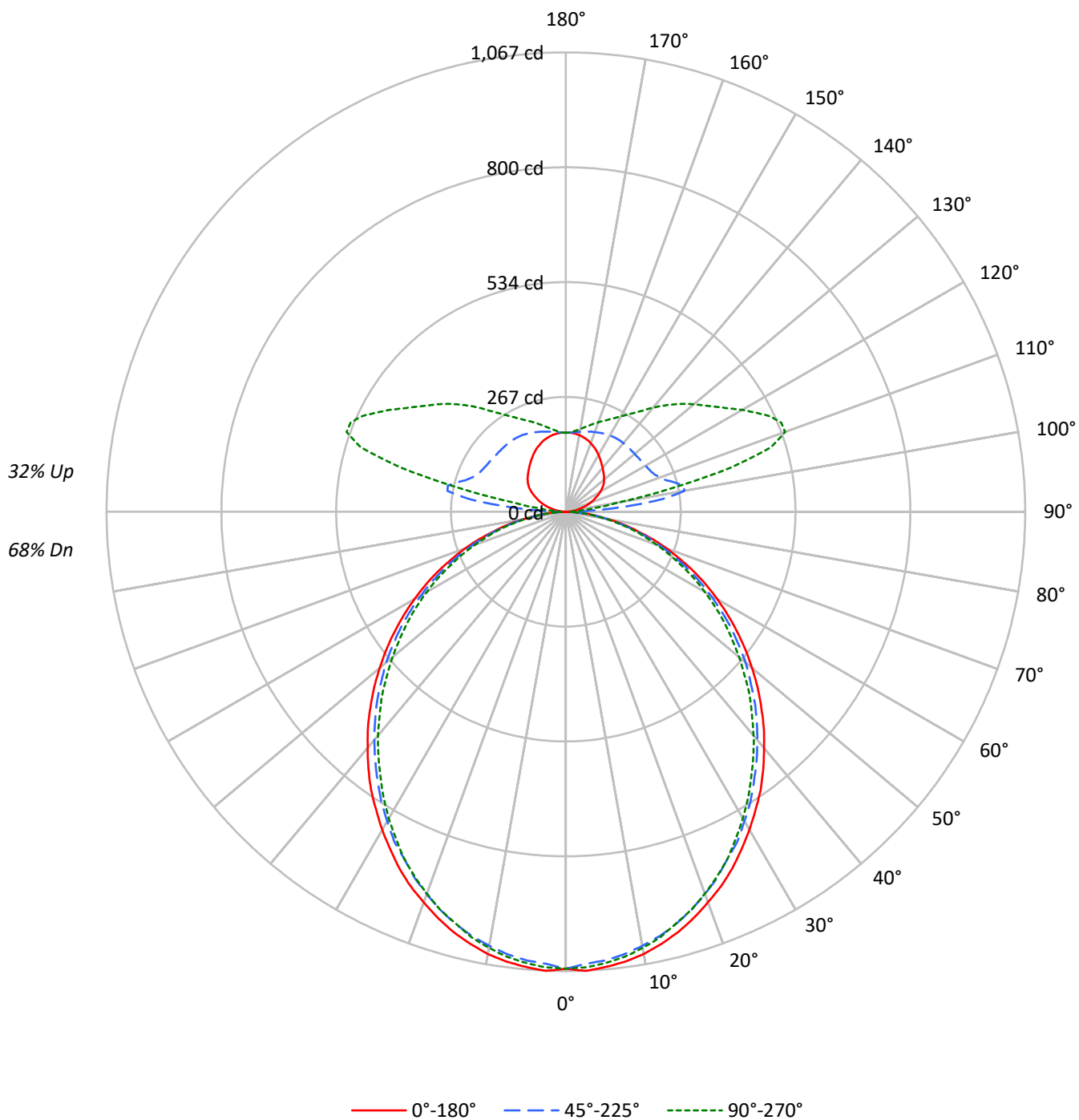
Lumens per Lamp: N/A
Luminaire Lumens: 3982.5 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 45.2
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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72
1	102	97	93	90	96	92	88	85	82	79	77	73	71	69	64	63	61
2	93	85	79	73	87	80	75	70	72	67	64	64	60	57	56	54	52
3	85	75	67	61	79	71	64	59	63	58	54	56	52	49	50	47	44
4	77	66	58	52	73	63	56	50	56	50	46	50	46	42	45	41	38
5	71	59	51	45	67	56	49	43	51	44	40	45	40	36	40	36	33
6	66	53	45	39	62	51	43	37	46	39	35	41	36	32	37	32	29
7	61	48	40	34	57	46	38	33	41	35	31	37	32	28	33	29	26
8	57	44	36	30	53	42	34	29	38	32	27	34	29	25	31	27	23
9	53	40	32	27	50	38	31	26	35	29	25	32	26	23	28	24	21
10	49	37	30	25	47	35	28	24	32	26	22	29	24	21	26	22	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16800	16800	16800
5°	16827	16012	15899
10°	16689	15283	14979
15°	16445	14547	14012
20°	16114	13747	13096
25°	15785	12913	12182
30°	15371	12127	11222
35°	14981	11300	10279
40°	14497	10483	9388
45°	14019	9672	8515
50°	13494	8847	7608
55°	12942	7966	6749
60°	12323	7011	5857
65°	11646	6040	4917
70°	10783	4978	3972
75°	9588	3838	3066
80°	8143	2609	1974
85°	5905	1214	839

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14019 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.9	2.5
10°-20°	281.0	7.1
20°-30°	413.0	10.4
30°-40°	479.7	12.0
40°-50°	479.1	12.0
50°-60°	417.7	10.5
60°-70°	308.8	7.8
70°-80°	174.7	4.4
80°-90°	47.3	1.2
90°-100°	74.5	1.9
100°-110°	251.9	6.3
110°-120°	264.8	6.6
120°-130°	217.7	5.5
130°-140°	174.9	4.4
140°-150°	132.2	3.3
150°-160°	92.9	2.3
160°-170°	54.7	1.4
170°-180°	17.8	0.4
0°-30°	793.9	19.9
0°-40°	1273.6	32.0
0°-60°	2170.4	54.5
0°-90°	2701.2	67.8
90°-120°	591.1	14.8
90°-150°	1115.9	28.0
90°-180°	1281.0	32.2
0°-180°	3982.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1061	1061	1061	1061	1061	
5°	1061	1057	1046	1054	1052	101
15°	1010	1004	991	995	990	285
25°	914	906	889	891	889	421
35°	789	779	762	756	751	493
45°	642	635	619	608	604	495
55°	486	480	467	455	450	434
65°	328	321	311	302	297	324
75°	171	169	164	158	160	183
85°	42	41	40	37	36	47
90°	0	5	12	12	12	3
95°	12	30	138	52	40	13
105°	43	65	262	468	398	46
115°	76	96	219	452	524	75
125°	106	125	211	366	425	94
135°	124	148	208	308	352	96
145°	142	163	207	257	281	89
155°	162	174	201	227	236	74
165°	176	181	193	204	208	50
175°	183	184	185	188	187	17
180°	184	184	184	184	184	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1061.3	1061.3	1061.3	1061.3	1061.3
2.5°	1067.4	1062.3	1051.0	1061.3	1059.2
5°	1061.3	1057.2	1045.9	1054.1	1052.1
7.5°	1054.1	1048.0	1036.8	1044.9	1042.9
10°	1042.9	1035.7	1023.5	1031.7	1028.6
12.5°	1027.6	1021.5	1009.2	1014.3	1012.3
15°	1010.2	1004.1	990.8	994.9	989.8
17.5°	988.8	982.7	969.4	974.5	969.4
20°	965.3	959.2	944.9	948.0	943.9
22.5°	941.9	932.7	919.4	919.4	917.4
25°	914.3	906.1	888.8	890.8	888.8
27.5°	883.7	876.6	863.3	860.2	855.1
30°	853.1	844.9	829.6	826.6	822.5
32.5°	820.4	814.3	798.0	791.9	787.8
35°	788.8	778.6	762.3	756.1	751.0
37.5°	753.1	743.9	727.6	720.4	715.3
40°	716.3	708.2	691.9	682.7	678.6
42.5°	680.6	672.5	656.1	645.9	639.8
45°	641.9	634.7	619.4	608.2	604.1
47.5°	604.1	597.0	580.6	569.4	563.3
50°	564.3	559.2	544.9	530.6	525.5
52.5°	525.5	518.4	505.1	493.9	486.7
55°	485.7	479.6	467.4	455.1	450.0
57.5°	445.9	440.8	427.6	415.3	411.2
60°	406.1	402.1	387.8	376.5	373.5
62.5°	367.4	360.2	350.0	339.8	335.7
65°	327.6	321.4	311.2	302.0	296.9
67.5°	286.7	281.6	272.5	265.3	261.2
70°	249.0	244.9	235.7	228.6	224.5
72.5°	210.2	206.1	201.0	193.9	190.8
75°	171.4	169.4	164.3	158.2	160.2
77.5°	136.7	132.7	130.6	127.6	124.5
80°	102.0	101.0	99.0	95.9	93.9
82.5°	69.4	69.4	68.4	64.3	64.3
85°	41.8	40.8	39.8	36.7	35.7
87.5°	18.4	16.3	14.3	11.2	10.2
90°	0.4	4.8	12.0	11.5	11.7
92.5°	5.3	16.8	54.4	25.1	21.6
95°	12.4	30.4	138.5	52.3	40.3
97.5°	18.4	40.1	225.8	105.0	67.5
100°	27.2	49.2	279.2	209.0	126.5
102.5°	35.3	57.2	281.0	353.4	246.7
105°	43.1	65.0	261.9	468.1	398.3
107.5°	51.6	72.8	244.2	509.6	500.4
110°	60.1	80.8	232.2	502.9	542.1

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	67.9	88.4	224.4	480.2	541.4
115°	76.0	96.0	219.1	452.2	524.1
117.5°	84.5	103.6	216.3	425.5	498.0
120°	92.2	111.0	213.8	401.6	472.9
122.5°	99.7	118.6	212.4	383.1	446.7
125°	106.0	125.4	210.6	366.4	425.2
127.5°	111.3	132.0	209.6	352.0	405.0
130°	115.9	137.9	208.9	337.5	388.4
132.5°	120.2	143.4	208.5	322.5	371.1
135°	124.4	148.4	208.2	307.8	352.4
137.5°	128.3	152.7	208.2	293.0	334.3
140°	132.9	156.6	207.8	279.9	315.6
142.5°	137.5	159.8	207.8	267.4	296.9
145°	142.1	163.3	207.1	257.1	281.3
147.5°	147.0	166.1	206.0	248.1	267.5
150°	152.0	169.0	205.0	240.3	255.5
152.5°	156.9	171.8	203.2	233.8	245.3
155°	161.5	174.4	201.1	227.4	236.4
157.5°	165.4	176.5	199.0	221.4	228.7
160°	169.3	178.6	196.9	215.4	221.2
162.5°	173.2	180.2	195.1	209.8	214.2
165°	176.0	181.3	192.6	204.3	207.5
167.5°	178.5	182.4	190.5	199.3	201.1
170°	180.9	182.9	188.7	194.8	195.4
172.5°	182.4	183.4	186.6	190.6	190.8
175°	183.4	183.6	185.2	187.5	187.0
177.5°	184.1	183.8	183.8	185.2	184.1
180°	183.8	183.8	183.8	183.8	183.8

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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	16.54	17.59	17.33	18.40	19.39	17.32	18.37	18.11	19.18	20.17
	3H	17.89	18.83	18.69	19.65	20.67	18.96	19.90	19.76	20.72	21.74
	4H	18.30	19.19	19.12	20.02	21.05	19.56	20.45	20.38	21.28	22.31
	6H	18.53	19.35	19.36	20.19	21.23	19.97	20.80	20.80	21.63	22.68
	8H	18.57	19.35	19.41	20.20	21.25	20.09	20.87	20.93	21.72	22.77
	12H	18.57	19.31	19.41	20.16	21.23	20.14	20.88	20.98	21.73	22.81
4H	2H	17.03	17.92	17.85	18.75	19.78	17.67	18.56	18.50	19.39	20.42
	3H	18.56	19.31	19.40	20.17	21.22	19.47	20.21	20.30	21.07	22.12
	4H	19.08	19.75	19.92	20.61	21.69	20.16	20.84	21.01	21.70	22.77
	6H	19.39	19.98	20.25	20.86	21.94	20.67	21.25	21.53	22.13	23.21
	8H	19.45	20.00	20.32	20.88	21.97	20.81	21.36	21.68	22.24	23.33
	12H	19.46	19.95	20.35	20.85	21.95	20.88	21.38	21.77	22.28	23.37
8H	4H	19.27	19.81	20.13	20.69	21.79	20.26	20.81	21.13	21.69	22.78
	6H	19.66	20.11	20.55	21.03	22.12	20.84	21.29	21.73	22.21	23.30
	8H	19.76	20.17	20.67	21.08	22.19	21.03	21.43	21.93	22.34	23.45
	12H	19.80	20.16	20.71	21.06	22.23	21.13	21.49	22.04	22.39	23.56
12H	4H	19.26	19.75	20.15	20.65	21.75	20.23	20.73	21.12	21.62	22.72
	6H	19.68	20.08	20.58	20.99	22.10	20.83	21.23	21.74	22.15	23.26
	8H	19.80	20.15	20.71	21.06	22.22	21.04	21.39	21.94	22.30	23.46