

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: P930894

Luminaire Tested: DFN2DS-SQ2F0-080DS927-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930894
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333882)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-SQ2F0-080DS927-RLL
Description: 2 foot, Square Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

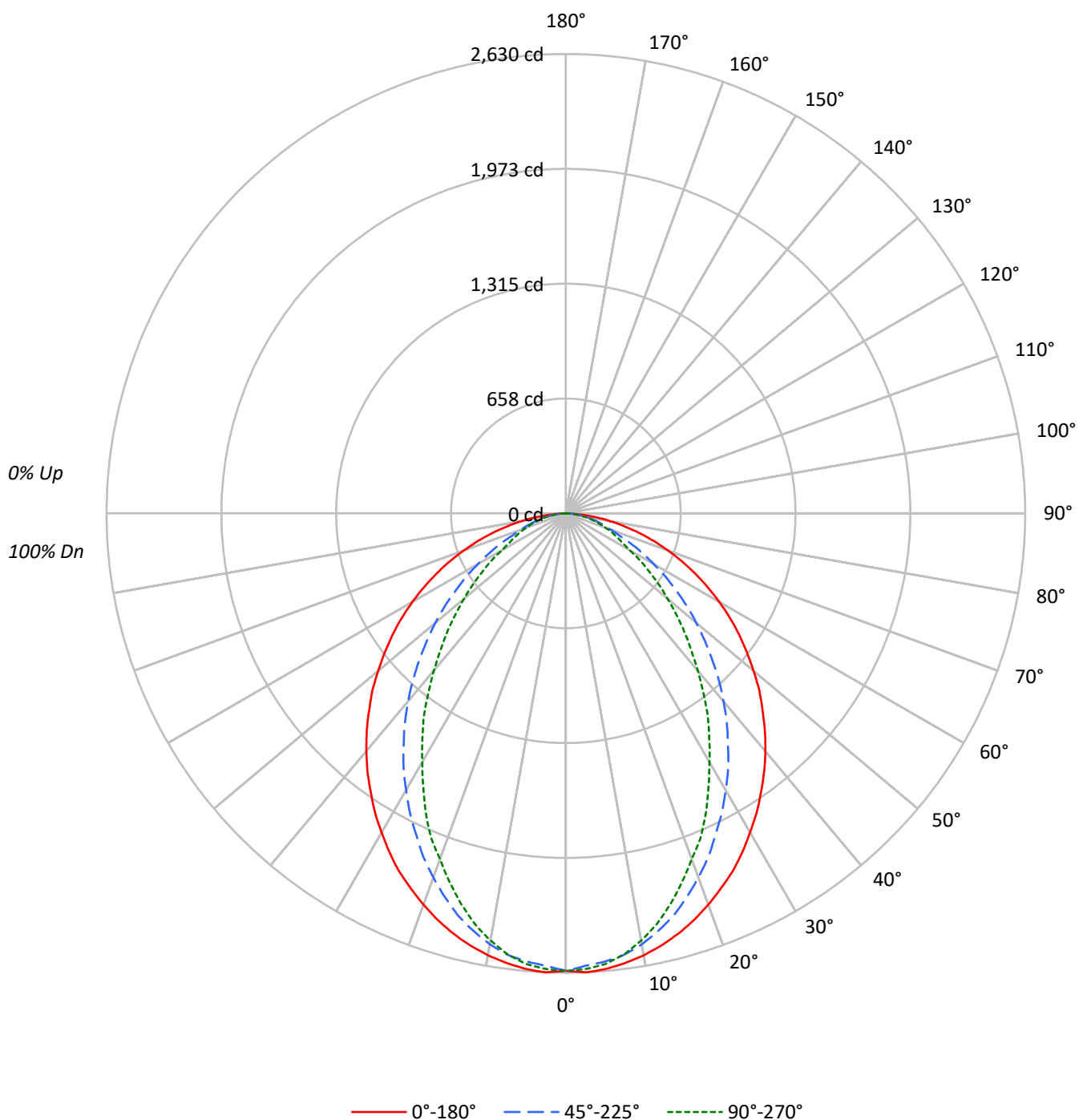
Lumens per Lamp: N/A
Luminaire Lumens: 5385.6 lumens
Efficiency: N/A
Efficacy: 65.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.21' x L: 2.21' x H: 0')
CIE Type: Direct

Input Watts (W): 82.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9957
Total Harmonic Distortion (THDi): 0.049
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	98	107	103	100	97	99	96	94		95	93	91		92
2	101	94	87	82	98	92	86	81	88	83	79		85	81	78		82
3	93	83	76	70	90	82	75	69	79	73	68		76	71	67		74
4	86	75	66	60	83	73	66	60	71	64	59		69	63	58		66
5	79	67	59	53	77	66	58	52	64	57	52		62	56	51		60
6	74	61	53	47	72	60	52	46	58	51	46		57	50	46		55
7	68	56	47	42	67	55	47	42	53	46	41		52	46	41		51
8	64	51	43	38	62	51	43	37	49	42	37		48	42	37		47
9	60	47	39	34	59	47	39	34	46	39	34		44	38	34		44
10	56	44	36	31	55	43	36	31	42	36	31		41	35	31		41

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5758	5758	5758
5°	5780	5686	5717
10°	5736	5593	5545
15°	5670	5427	5271
20°	5579	5191	4930
25°	5485	4922	4600
30°	5356	4645	4176
35°	5229	4345	3804
40°	5102	4034	3374
45°	4953	3685	2984
50°	4799	3332	2603
55°	4642	2952	2235
60°	4460	2553	1855
65°	4255	2145	1689
70°	4007	1767	1553
75°	3704	1611	1451
80°	3270	1440	1321
85°	2571	1135	1135

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
Vertical Angle: 45°
Luminance: 4953 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	245.4	4.6
10°-20°	673.7	12.5
20°-30°	945.9	17.6
30°-40°	1031.1	19.1
40°-50°	947.7	17.6
50°-60°	744.3	13.8
60°-70°	484.4	9.0
70°-80°	249.4	4.6
80°-90°	63.7	1.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1865.1	34.6
0°-40°	2896.2	53.8
0°-60°	4588.1	85.2
0°-90°	5385.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5385.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2619	2619	2619	2619	2619	
5°	2619	2607	2576	2597	2590	248
15°	2491	2464	2384	2339	2315	702
25°	2261	2185	2028	1932	1896	1040
35°	1948	1827	1619	1469	1417	1219
45°	1593	1434	1185	1016	960	1230
55°	1211	1026	770	628	583	1082
65°	818	626	412	332	325	811
75°	436	270	190	173	171	461
85°	102	52	45	45	45	122
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2618.7	2618.7	2618.7	2618.7	2618.7
2.5°	2630.5	2618.7	2592.5	2616.4	2611.6
5°	2618.7	2606.9	2575.9	2597.3	2590.2
7.5°	2597.3	2583.2	2550.0	2559.3	2547.5
10°	2568.9	2552.3	2505.0	2497.7	2483.6
12.5°	2533.4	2512.1	2447.9	2433.8	2407.7
15°	2490.7	2464.5	2384.1	2339.1	2315.4
17.5°	2440.9	2402.9	2303.4	2251.3	2213.3
20°	2384.1	2336.6	2218.2	2159.1	2106.7
22.5°	2322.5	2267.9	2130.4	2049.9	2014.5
25°	2260.8	2185.0	2028.5	1931.5	1895.8
27.5°	2187.4	2106.7	1933.7	1822.4	1767.8
30°	2109.3	2019.0	1829.4	1708.7	1644.6
32.5°	2033.3	1924.2	1730.1	1587.8	1528.5
35°	1948.1	1827.1	1618.7	1469.4	1417.0
37.5°	1865.1	1734.6	1514.4	1350.7	1291.6
40°	1777.4	1635.3	1405.2	1237.0	1175.4
42.5°	1687.4	1535.8	1296.3	1120.9	1061.8
45°	1592.6	1433.7	1185.0	1016.5	959.7
47.5°	1502.6	1334.4	1078.4	909.9	857.9
50°	1402.9	1234.8	974.1	810.4	760.8
52.5°	1305.7	1127.9	874.4	718.1	673.1
55°	1210.9	1026.1	770.1	628.1	583.1
57.5°	1113.9	924.3	677.9	545.1	507.1
60°	1014.2	824.7	580.5	459.8	421.9
62.5°	917.2	727.6	497.6	384.0	365.1
65°	817.7	625.5	412.3	331.9	324.6
67.5°	722.9	530.8	331.9	291.4	284.4
70°	623.3	438.5	274.8	251.1	241.6
72.5°	528.5	353.0	229.8	211.0	206.2
75°	436.0	270.1	189.6	173.0	170.8
77.5°	343.7	191.8	149.4	139.8	135.0
80°	258.2	137.6	113.7	104.3	104.3
82.5°	180.0	92.5	78.2	73.4	73.4
85°	101.9	52.0	45.0	45.0	45.0
87.5°	37.9	18.8	18.8	16.6	16.6
90°	0.0	0.0	0.0	0.0	0.0

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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	17.32	18.84	17.68	19.15	19.47	13.28	14.80	13.64	15.11	15.43
	3H	19.08	20.45	19.46	20.78	21.14	14.54	15.91	14.92	16.24	16.60
	4H	19.75	21.03	20.15	21.38	21.76	15.04	16.33	15.44	16.67	17.05
	6H	20.24	21.42	20.65	21.79	22.18	15.43	16.61	15.84	16.97	17.37
	8H	20.40	21.53	20.83	21.92	22.32	15.55	16.68	15.98	17.07	17.47
	12H	20.51	21.58	20.94	21.97	22.40	15.63	16.71	16.06	17.09	17.52
4H	2H	17.42	18.70	17.82	19.05	19.43	13.97	15.25	14.37	15.60	15.98
	3H	19.35	20.42	19.77	20.82	21.22	15.42	16.48	15.83	16.88	17.28
	4H	20.10	21.06	20.54	21.48	21.91	16.02	16.97	16.45	17.39	17.83
	6H	20.70	21.53	21.15	21.97	22.43	16.50	17.34	16.96	17.78	18.24
	8H	20.91	21.69	21.37	22.13	22.60	16.67	17.44	17.13	17.89	18.35
	12H	21.06	21.76	21.55	22.24	22.71	16.78	17.48	17.26	17.96	18.43
8H	4H	20.13	20.91	20.59	21.35	21.82	16.37	17.15	16.83	17.59	18.06
	6H	20.77	21.41	21.26	21.90	22.38	16.96	17.60	17.45	18.09	18.57
	8H	21.02	21.59	21.53	22.10	22.59	17.18	17.75	17.69	18.26	18.75
	12H	21.22	21.73	21.73	22.22	22.79	17.36	17.87	17.87	18.36	18.92
12H	4H	20.11	20.81	20.59	21.29	21.76	16.41	17.11	16.89	17.59	18.06
	6H	20.75	21.32	21.26	21.83	22.32	17.02	17.60	17.53	18.11	18.59
	8H	21.03	21.54	21.54	22.03	22.60	17.29	17.80	17.80	18.29	18.86

END OF REPORT