

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: P930848

Luminaire Tested: DFN2DS-SQ2F0-050DS950-RLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930848
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-SQ2F0-050DS950-RLL
Description: 2 foot, Square Define Geo, with Direct 1in Regressed Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

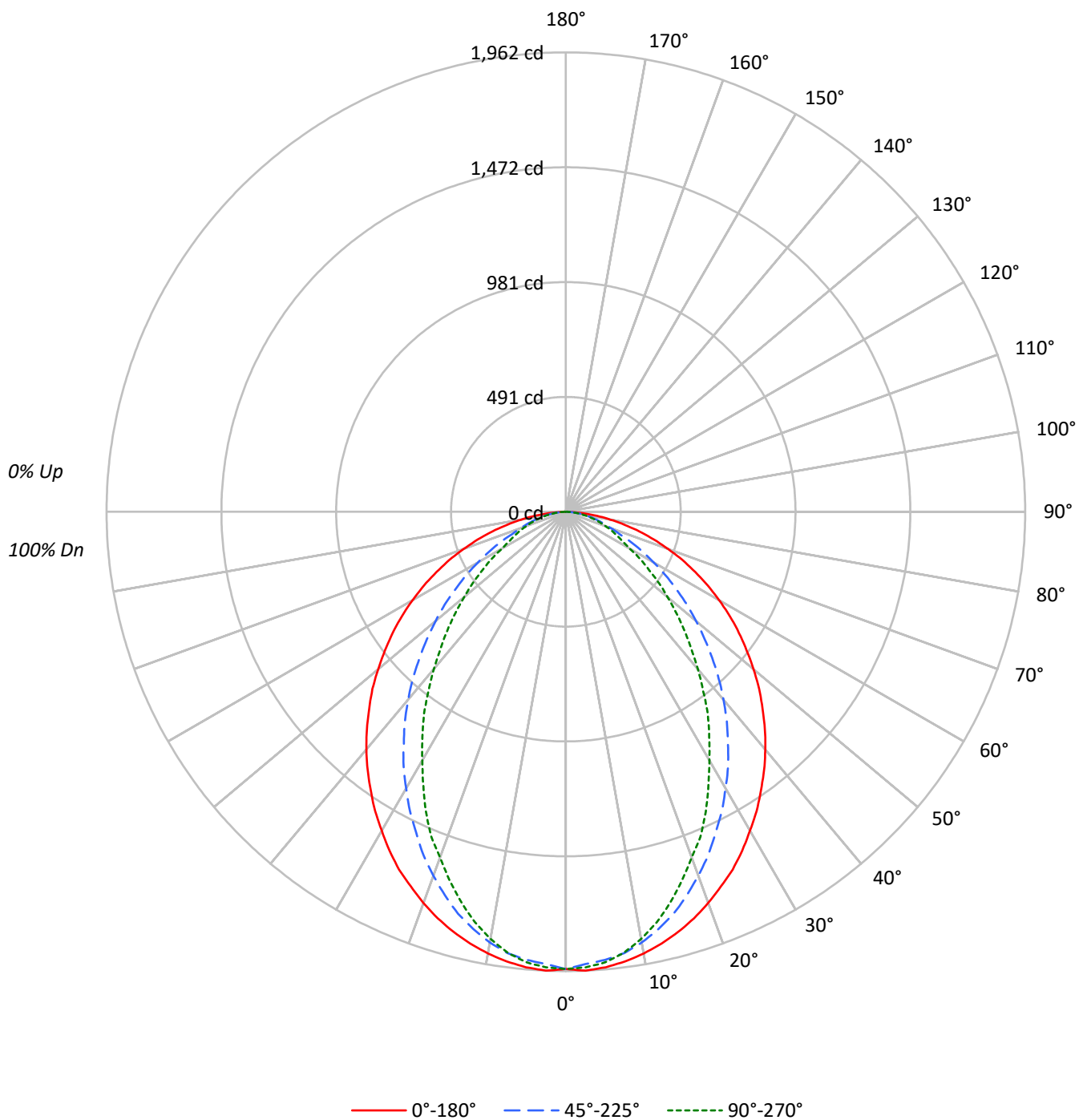
Lumens per Lamp: N/A
Luminaire Lumens: 4016.3 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 2.21' x L: 2.21' x H: 0')
CIE Type: Direct

Input Watts (W): 47.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 0.064
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°	4294	4294	4294
5°	4310	4240	4264
10°	4277	4171	4135
15°	4228	4047	3931
20°	4160	3871	3676
25°	4091	3670	3430
30°	3994	3464	3114
35°	3900	3240	2837
40°	3805	3008	2516
45°	3693	2748	2225
50°	3579	2485	1941
55°	3462	2202	1667
60°	3326	1904	1384
65°	3172	1600	1260
70°	2988	1318	1159
75°	2763	1201	1082
80°	2439	1074	985
85°	1917	845	845

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3693 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.0	4.6
10°-20°	502.4	12.5
20°-30°	705.4	17.6
30°-40°	768.9	19.1
40°-50°	706.7	17.6
50°-60°	555.0	13.8
60°-70°	361.3	9.0
70°-80°	186.0	4.6
80°-90°	47.5	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°	1390.9	34.6
0°-40°	2159.8	53.8
0°-60°	3421.5	85.2
0°-90°	4016.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4016.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1953	1953	1953	1953	1953	
5°	1953	1944	1921	1937	1932	185
15°	1857	1838	1778	1744	1727	523
25°	1686	1629	1513	1440	1414	775
35°	1453	1363	1207	1096	1057	909
45°	1188	1069	884	758	716	917
55°	903	765	574	468	435	807
65°	610	466	308	248	242	604
75°	325	201	141	129	127	344
85°	76	39	34	34	34	91
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1952.8	1952.8	1952.8	1952.8	1952.8
2.5°	1961.6	1952.8	1933.4	1951.1	1947.6
5°	1952.8	1944.1	1921.0	1936.9	1931.7
7.5°	1936.9	1926.4	1901.6	1908.6	1899.7
10°	1915.7	1903.3	1868.1	1862.7	1852.1
12.5°	1889.2	1873.4	1825.6	1815.1	1795.5
15°	1857.4	1837.9	1777.9	1744.4	1726.7
17.5°	1820.3	1792.0	1717.7	1678.9	1650.5
20°	1777.9	1742.5	1654.1	1610.1	1571.1
22.5°	1732.0	1691.3	1588.7	1528.7	1502.3
25°	1686.0	1629.4	1512.8	1440.4	1413.7
27.5°	1631.3	1571.1	1442.1	1359.0	1318.4
30°	1573.0	1505.7	1364.3	1274.2	1226.4
32.5°	1516.3	1435.0	1290.2	1184.1	1139.9
35°	1452.7	1362.6	1207.1	1095.7	1056.8
37.5°	1390.9	1293.6	1129.4	1007.3	963.2
40°	1325.5	1219.5	1047.9	922.5	876.6
42.5°	1258.4	1145.2	966.7	835.9	791.8
45°	1187.7	1069.2	883.7	758.1	715.6
47.5°	1120.5	995.1	804.2	678.6	639.8
50°	1046.3	920.8	726.4	604.3	567.4
52.5°	973.7	841.1	652.1	535.5	502.0
55°	903.0	765.2	574.3	468.3	434.8
57.5°	830.7	689.3	505.5	406.5	378.2
60°	756.4	615.0	432.9	342.9	314.6
62.5°	684.0	542.6	371.1	286.3	272.3
65°	609.7	466.5	307.5	247.5	242.1
67.5°	539.0	395.9	247.5	217.4	212.1
70°	464.8	327.0	205.0	187.3	180.2
72.5°	394.2	263.3	171.4	157.3	153.8
75°	325.2	201.4	141.4	129.0	127.3
77.5°	256.3	143.1	111.4	104.2	100.6
80°	192.6	102.5	84.8	77.8	77.8
82.5°	134.3	69.0	58.3	54.7	54.7
85°	76.0	38.8	33.5	33.5	33.5
87.5°	28.4	14.1	14.1	12.4	12.4
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	16.30	17.82	16.66	18.13	18.45	12.26	13.78	12.62	14.09	14.41
	3H	18.06	19.43	18.44	19.76	20.12	13.52	14.89	13.90	15.22	15.58
	4H	18.73	20.01	19.13	20.36	20.74	14.03	15.31	14.43	15.65	16.03
	6H	19.22	20.40	19.63	20.77	21.16	14.41	15.59	14.82	15.96	16.35
	8H	19.38	20.51	19.81	20.90	21.30	14.53	15.66	14.96	16.05	16.45
	12H	19.49	20.57	19.92	20.95	21.38	14.61	15.69	15.04	16.07	16.50
4H	2H	16.40	17.68	16.80	18.03	18.41	12.95	14.23	13.35	14.58	14.96
	3H	18.34	19.40	18.75	19.80	20.20	14.40	15.46	14.81	15.86	16.26
	4H	19.08	20.04	19.52	20.46	20.90	15.00	15.95	15.43	16.37	16.81
	6H	19.68	20.51	20.13	20.95	21.41	15.48	16.32	15.94	16.76	17.22
	8H	19.89	20.67	20.35	21.11	21.58	15.65	16.42	16.11	16.87	17.33
	12H	20.04	20.74	20.53	21.22	21.69	15.76	16.46	16.24	16.94	17.41
8H	4H	19.11	19.89	19.57	20.33	20.80	15.35	16.13	15.81	16.57	17.04
	6H	19.75	20.39	20.24	20.88	21.36	15.94	16.58	16.43	17.07	17.55
	8H	20.00	20.57	20.51	21.08	21.57	16.16	16.73	16.67	17.24	17.73
	12H	20.20	20.71	20.71	21.20	21.77	16.34	16.85	16.85	17.34	17.90
12H	4H	19.09	19.79	19.58	20.27	20.74	15.39	16.09	15.88	16.57	17.04
	6H	19.73	20.30	20.24	20.81	21.30	16.00	16.58	16.51	17.09	17.58
	8H	20.01	20.52	20.52	21.01	21.58	16.27	16.78	16.78	17.27	17.84