

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: P931307

Luminaire Tested: DFN2DS-TR2F0-060DS927-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931307
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P333812)
Test Lab: INNOVATION CENTER
Issue Date: 11/20/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: DFN2DS-TR2F0-060DS927-FLL
Description: 2 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

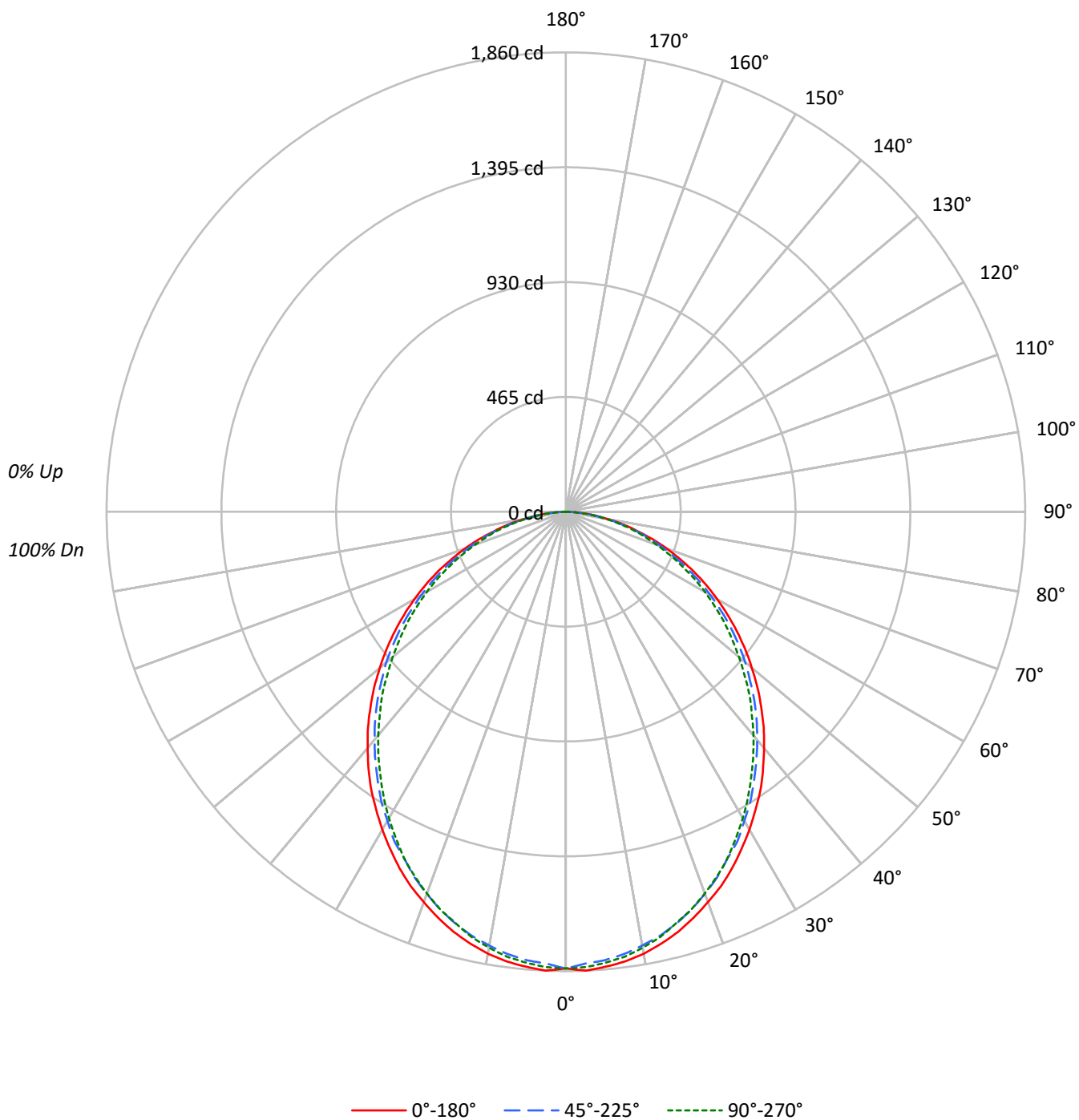
Lumens per Lamp: N/A
Luminaire Lumens: 4704.5 lumens
Efficiency: N/A
Efficacy: 76.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 2.36' x L: 2.04' x H: 0')
CIE Type: Direct

Input Watts (W): 61.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9971
Total Harmonic Distortion (THDi): 0.049
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P931307

CATALOG NUMBER: DFN2DS-TR2F0-060DS927-FLL

Luminous Intensity Polar Plot



TEST NUMBER: P931307

CATALOG NUMBER: DFN2DS-TR2F0-060DS927-FLL

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	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40
10	54	41	33	28	53	40	33	28	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4124	4124	4124
5°	4140	4080	4104
10°	4116	4039	4059
15°	4064	3986	3983
20°	3992	3908	3904
25°	3920	3811	3811
30°	3828	3723	3691
35°	3742	3616	3563
40°	3634	3510	3443
45°	3528	3404	3320
50°	3412	3294	3177
55°	3291	3167	3049
60°	3157	3014	2903
65°	3012	2863	2731
70°	2830	2678	2551
75°	2573	2466	2406
80°	2285	2214	2100
85°	1863	1776	1594

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3528 cd/sqm

TEST NUMBER: P931307

CATALOG NUMBER: DFN2DS-TR2F0-060DS927-FLL

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.0	3.7
10°-20°	489.7	10.4
20°-30°	719.6	15.3
30°-40°	835.8	17.8
40°-50°	834.7	17.7
50°-60°	727.9	15.5
60°-70°	538.1	11.4
70°-80°	304.4	6.5
80°-90°	80.3	1.7
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°	1383.3	29.4
0°-40°	2219.1	47.2
0°-60°	3781.7	80.4
0°-90°	4704.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4704.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1849	1849	1849	1849	1849	
5°	1849	1842	1822	1837	1833	176
15°	1760	1750	1726	1734	1725	496
25°	1593	1579	1549	1552	1549	733
35°	1374	1357	1328	1317	1308	858
45°	1118	1106	1079	1060	1053	863
55°	846	836	814	793	784	757
65°	571	560	542	526	517	564
75°	299	295	286	276	279	319
85°	73	71	69	64	62	86
90°	0	0	0	0	0	

TEST NUMBER: P931307

CATALOG NUMBER: DFN2DS-TR2F0-060DS927-FLL

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1849.0	1849.0	1849.0	1849.0	1849.0
2.5°	1859.8	1850.9	1831.3	1849.0	1845.6
5°	1849.0	1842.0	1822.4	1836.6	1833.2
7.5°	1836.6	1826.0	1806.4	1820.7	1817.2
10°	1817.2	1804.7	1783.3	1797.5	1792.2
12.5°	1790.4	1779.8	1758.5	1767.3	1763.8
15°	1760.1	1749.6	1726.4	1733.6	1724.7
17.5°	1722.8	1712.3	1689.1	1697.9	1689.1
20°	1681.9	1671.4	1646.4	1651.7	1644.7
22.5°	1641.2	1625.1	1601.9	1601.9	1598.3
25°	1593.0	1578.9	1548.7	1552.1	1548.7
27.5°	1539.6	1527.2	1504.2	1498.9	1490.1
30°	1486.5	1472.1	1445.6	1440.3	1433.0
32.5°	1429.5	1418.9	1390.4	1379.7	1372.5
35°	1374.4	1356.7	1328.2	1317.4	1308.5
37.5°	1312.2	1296.1	1267.7	1255.2	1246.3
40°	1248.2	1233.9	1205.4	1189.6	1182.4
42.5°	1185.9	1171.6	1143.3	1125.4	1114.8
45°	1118.5	1105.9	1079.2	1059.8	1052.6
47.5°	1052.6	1040.1	1011.7	992.1	981.4
50°	983.2	974.3	949.4	924.5	915.6
52.5°	915.6	903.2	880.1	860.6	848.2
55°	846.4	835.6	814.3	793.0	784.2
57.5°	777.0	768.2	745.0	723.7	716.4
60°	707.6	700.6	675.7	656.1	650.8
62.5°	640.0	627.6	609.8	592.1	585.0
65°	570.8	560.1	542.4	526.3	517.4
67.5°	499.7	490.6	474.8	462.4	455.2
70°	433.9	426.7	410.7	398.2	391.2
72.5°	366.3	359.2	350.3	337.9	332.6
75°	298.6	295.3	286.1	275.6	279.2
77.5°	238.2	231.1	227.5	222.2	216.9
80°	177.9	176.0	172.4	167.1	163.5
82.5°	120.9	120.9	119.2	112.1	112.1
85°	72.8	71.1	69.4	63.9	62.3
87.5°	32.1	28.5	24.9	19.6	17.7
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P931307

CATALOG NUMBER: DFN2DS-TR2F0-060DS927-FLL

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	16.21	17.82	16.57	18.13	18.44	15.76	17.37	16.13	17.69	18.00
	3H	17.96	19.41	18.33	19.74	20.10	17.46	18.92	17.84	19.25	19.61
	4H	18.60	19.97	19.00	20.32	20.69	18.11	19.48	18.51	19.82	20.20
	6H	19.07	20.34	19.48	20.70	21.10	18.57	19.84	18.98	20.20	20.59
	8H	19.21	20.42	19.64	20.81	21.21	18.71	19.92	19.14	20.31	20.71
	12H	19.30	20.46	19.73	20.85	21.27	18.79	19.95	19.22	20.33	20.76
4H	2H	16.77	18.14	17.16	18.48	18.86	16.41	17.78	16.81	18.13	18.51
	3H	18.74	19.89	19.15	20.29	20.69	18.33	19.48	18.74	19.88	20.28
	4H	19.52	20.55	19.95	20.97	21.40	19.09	20.13	19.53	20.54	20.98
	6H	20.11	21.02	20.57	21.46	21.92	19.68	20.59	20.14	21.03	21.48
	8H	20.30	21.15	20.76	21.59	22.06	19.87	20.71	20.33	21.15	21.62
	12H	20.44	21.20	20.92	21.67	22.14	19.98	20.74	20.46	21.22	21.69
8H	4H	19.79	20.64	20.25	21.08	21.55	19.42	20.26	19.88	20.71	21.17
	6H	20.51	21.21	21.00	21.70	22.17	20.12	20.83	20.62	21.31	21.79
	8H	20.76	21.40	21.27	21.90	22.39	20.37	21.00	20.88	21.51	22.00
	12H	20.96	21.52	21.47	22.01	22.57	20.55	21.11	21.06	21.60	22.16
12H	4H	19.82	20.58	20.30	21.05	21.52	19.45	20.21	19.93	20.69	21.16
	6H	20.55	21.18	21.06	21.69	22.18	20.18	20.81	20.69	21.32	21.81
	8H	20.86	21.42	21.37	21.91	22.47	20.49	21.04	20.99	21.53	22.10