

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: P930577

Luminaire Tested: DFN2DS-PN3F0-060DS950-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P930577
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-PN3F0-060DS950-FLL
Description: 3 foot, Pentagon Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

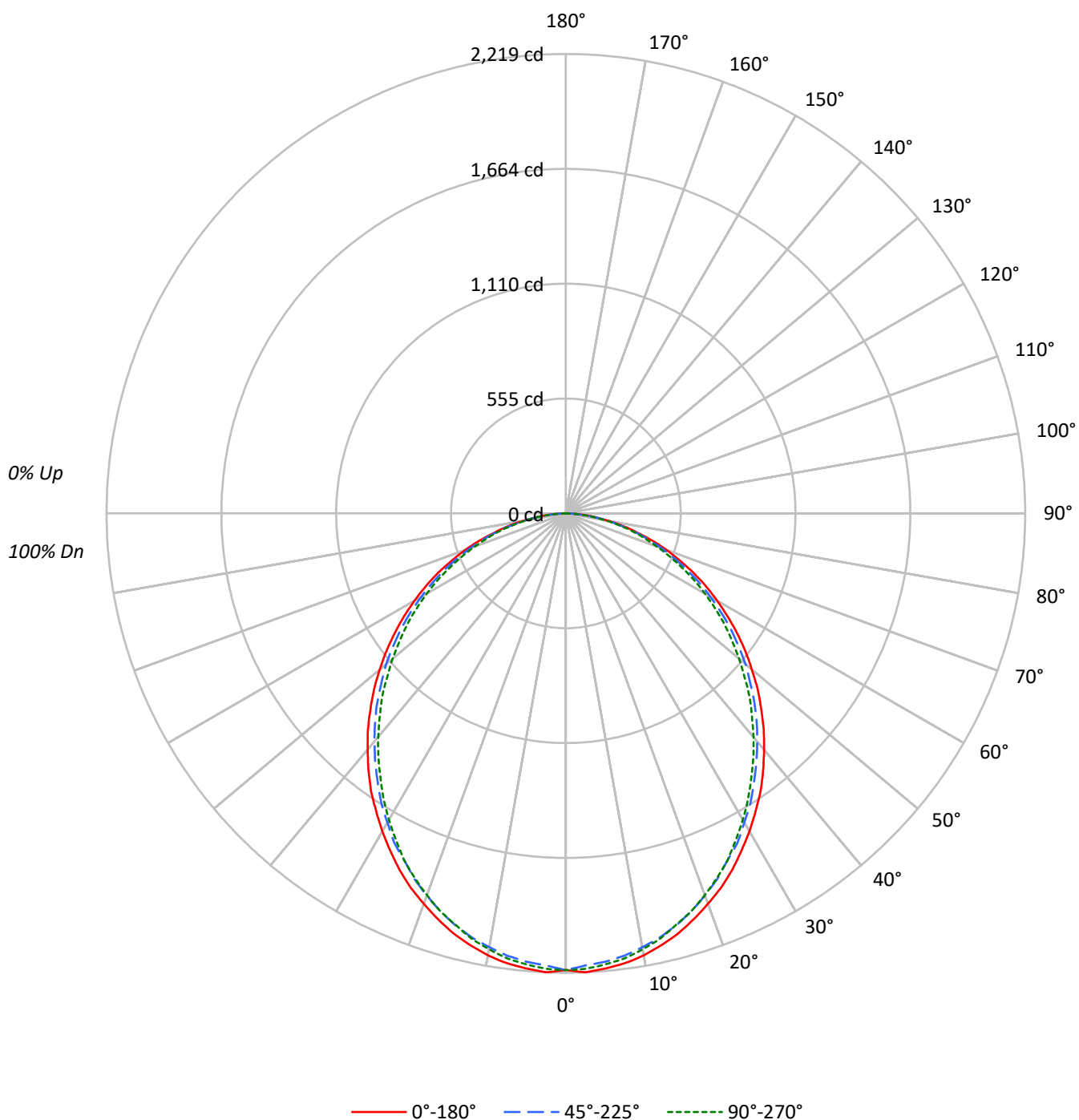
Lumens per Lamp: N/A
Luminaire Lumens: 5613.3 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.11' x L: 2.96' x H: 0')
CIE Type: Direct

Input Watts (W): 61.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9821
Total Harmonic Distortion (THDi): 0.08
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	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°	2579	2579	2579
5°	2589	2552	2567
10°	2574	2526	2538
15°	2542	2493	2491
20°	2496	2444	2441
25°	2452	2383	2383
30°	2394	2328	2308
35°	2340	2262	2228
40°	2273	2195	2153
45°	2206	2129	2076
50°	2133	2060	1987
55°	2058	1980	1907
60°	1974	1885	1815
65°	1884	1790	1708
70°	1769	1675	1595
75°	1609	1542	1504
80°	1429	1385	1313
85°	1164	1111	997

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2206 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.7	3.7
10°-20°	584.3	10.4
20°-30°	858.6	15.3
30°-40°	997.2	17.8
40°-50°	996.0	17.7
50°-60°	868.5	15.5
60°-70°	642.0	11.4
70°-80°	363.2	6.5
80°-90°	95.9	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°	1650.5	29.4
0°-40°	2647.7	47.2
0°-60°	4512.2	80.4
0°-90°	5613.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5613.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2206	2206	2206	2206	2206	
5°	2206	2198	2174	2191	2187	209
15°	2100	2088	2060	2068	2058	592
25°	1901	1884	1848	1852	1848	875
35°	1640	1619	1585	1572	1561	1024
45°	1334	1320	1288	1264	1256	1030
55°	1010	997	972	946	936	903
65°	681	668	647	628	617	673
75°	356	352	341	329	333	380
85°	87	85	83	76	74	102
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2206.2	2206.2	2206.2	2206.2	2206.2
2.5°	2219.0	2208.5	2185.0	2206.2	2202.1
5°	2206.2	2197.9	2174.4	2191.4	2187.3
7.5°	2191.4	2178.8	2155.4	2172.5	2168.2
10°	2168.2	2153.4	2127.9	2144.8	2138.4
12.5°	2136.3	2123.6	2098.2	2108.8	2104.5
15°	2100.2	2087.6	2059.9	2068.5	2057.9
17.5°	2055.7	2043.1	2015.4	2025.9	2015.4
20°	2006.8	1994.2	1964.5	1970.8	1962.5
22.5°	1958.2	1939.0	1911.4	1911.4	1907.1
25°	1900.8	1884.0	1847.9	1851.9	1847.9
27.5°	1837.1	1822.2	1794.7	1788.5	1777.9
30°	1773.7	1756.5	1724.8	1718.5	1709.9
32.5°	1705.6	1693.1	1659.0	1646.2	1637.7
35°	1640.0	1618.8	1584.8	1571.9	1561.3
37.5°	1565.7	1546.5	1512.6	1497.6	1487.1
40°	1489.3	1472.2	1438.3	1419.4	1410.8
42.5°	1415.0	1397.9	1364.2	1342.8	1330.2
45°	1334.5	1319.6	1287.7	1264.5	1255.9
47.5°	1255.9	1241.1	1207.1	1183.7	1171.0
50°	1173.1	1162.5	1132.9	1103.1	1092.5
52.5°	1092.5	1077.7	1050.2	1026.8	1012.0
55°	1009.9	997.1	971.6	946.2	935.6
57.5°	927.1	916.6	888.9	863.4	854.8
60°	844.3	835.9	806.3	782.8	776.5
62.5°	763.7	748.8	727.6	706.5	698.0
65°	681.1	668.3	647.1	628.0	617.4
67.5°	596.2	585.4	566.5	551.7	543.1
70°	517.7	509.2	490.0	475.1	466.8
72.5°	437.1	428.6	418.0	403.1	396.8
75°	356.3	352.3	341.4	328.9	333.1
77.5°	284.3	275.8	271.4	265.2	258.8
80°	212.2	210.0	205.7	199.4	195.1
82.5°	144.3	144.3	142.2	133.7	133.7
85°	86.8	84.9	82.8	76.3	74.3
87.5°	38.3	34.0	29.7	23.4	21.2
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	14.57	16.19	14.94	16.50	16.81	14.13	15.74	14.49	16.05	16.37
	3H	16.32	17.78	16.70	18.11	18.47	15.83	17.29	16.21	17.61	17.97
	4H	16.97	18.34	17.37	18.69	19.06	16.48	17.84	16.87	18.19	18.57
	6H	17.44	18.71	17.85	19.07	19.46	16.94	18.21	17.35	18.57	18.96
	8H	17.58	18.79	18.01	19.18	19.58	17.08	18.29	17.50	18.68	19.08
	12H	17.67	18.83	18.10	19.21	19.64	17.16	18.32	17.59	18.70	19.13
4H	2H	15.14	16.50	15.53	16.85	17.23	14.78	16.15	15.18	16.50	16.87
	3H	17.11	18.26	17.52	18.65	19.05	16.70	17.85	17.11	18.25	18.65
	4H	17.89	18.92	18.32	19.34	19.77	17.46	18.50	17.89	18.91	19.35
	6H	18.48	19.39	18.94	19.83	20.28	18.05	18.96	18.50	19.40	19.85
	8H	18.67	19.52	19.13	19.96	20.43	18.23	19.08	18.69	19.52	19.99
	12H	18.80	19.56	19.28	20.04	20.51	18.35	19.11	18.83	19.59	20.06
8H	4H	18.16	19.01	18.62	19.45	19.91	17.79	18.63	18.25	19.07	19.54
	6H	18.87	19.58	19.37	20.07	20.54	18.49	19.20	18.99	19.68	20.16
	8H	19.13	19.76	19.64	20.27	20.76	18.74	19.37	19.25	19.88	20.36
	12H	19.33	19.89	19.84	20.38	20.94	18.92	19.48	19.43	19.97	20.53
12H	4H	18.19	18.95	18.67	19.42	19.89	17.82	18.58	18.30	19.06	19.53
	6H	18.92	19.55	19.43	20.06	20.54	18.55	19.18	19.06	19.69	20.18
	8H	19.23	19.79	19.74	20.28	20.84	18.86	19.41	19.36	19.90	20.46