

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: P931387

Luminaire Tested: DFN2DS-TR3F0-060DS950-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931387
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-TR3F0-060DS950-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

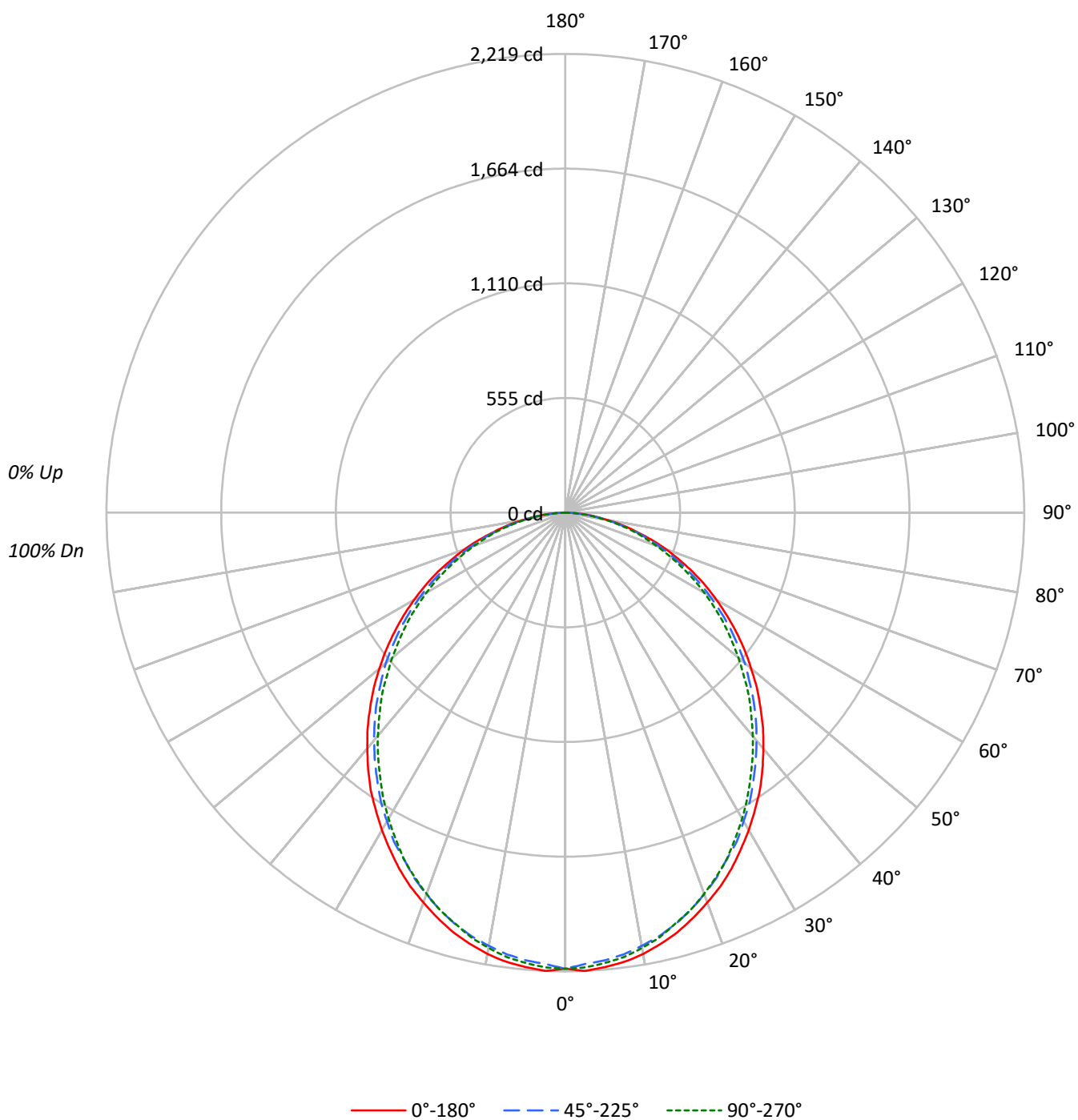
Lumens per Lamp: N/A
Luminaire Lumens: 5613.3 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 61.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9789
Total Harmonic Distortion (THDi): 0.074
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°	2749	2749	2749
5°	2760	2720	2736
10°	2743	2692	2706
15°	2709	2657	2655
20°	2661	2605	2602
25°	2613	2541	2541
30°	2552	2482	2460
35°	2495	2411	2375
40°	2423	2340	2295
45°	2352	2269	2213
50°	2274	2196	2118
55°	2194	2111	2033
60°	2104	2009	1935
65°	2008	1908	1820
70°	1886	1785	1701
75°	1715	1644	1604
80°	1523	1476	1400
85°	1241	1184	1062

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2352 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	14.80	16.41	15.16	16.72	17.04	14.35	15.96	14.72	16.28	16.59
	3H	16.55	18.00	16.92	18.33	18.69	16.06	17.51	16.43	17.84	18.20
	4H	17.19	18.56	17.59	18.91	19.29	16.70	18.07	17.10	18.41	18.79
	6H	17.66	18.93	18.07	19.30	19.69	17.16	18.43	17.57	18.79	19.18
	8H	17.81	19.02	18.23	19.40	19.80	17.30	18.51	17.73	18.90	19.30
	12H	17.90	19.06	18.32	19.44	19.87	17.38	18.54	17.81	18.92	19.35
4H	2H	15.36	16.73	15.76	17.07	17.45	15.00	16.37	15.40	16.72	17.10
	3H	17.33	18.48	17.74	18.88	19.28	16.92	18.07	17.33	18.47	18.87
	4H	18.11	19.14	18.54	19.56	19.99	17.68	18.72	18.12	19.13	19.57
	6H	18.71	19.61	19.16	20.05	20.51	18.27	19.18	18.73	19.62	20.07
	8H	18.89	19.74	19.36	20.18	20.65	18.46	19.30	18.92	19.75	20.21
	12H	19.03	19.79	19.51	20.26	20.73	18.57	19.33	19.05	19.81	20.28
8H	4H	18.38	19.23	18.84	19.67	20.14	18.01	18.85	18.47	19.30	19.76
	6H	19.10	19.80	19.59	20.29	20.76	18.71	19.42	19.21	19.91	20.38
	8H	19.36	19.99	19.87	20.49	20.98	18.96	19.59	19.47	20.10	20.59
	12H	19.56	20.11	20.06	20.60	21.16	19.14	19.70	19.65	20.19	20.75
12H	4H	18.41	19.17	18.89	19.64	20.11	18.04	18.80	18.52	19.28	19.75
	6H	19.14	19.77	19.65	20.28	20.77	18.77	19.40	19.28	19.91	20.40
	8H	19.46	20.01	19.96	20.50	21.06	19.08	19.63	19.58	20.13	20.69