

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: P931419

Luminaire Tested: DFN2DS-TR3F0-080DS935-FLL

Issue Date: 11/20/2024

Test Information

Test Method: LM-79-2019
Report Number: P931419
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-TR3F0-080DS935-FLL
Description: 3 foot, Triangle Define Geo, with Direct Frosted Lens
Light Source: -
Ballast/Driver: -

Summary

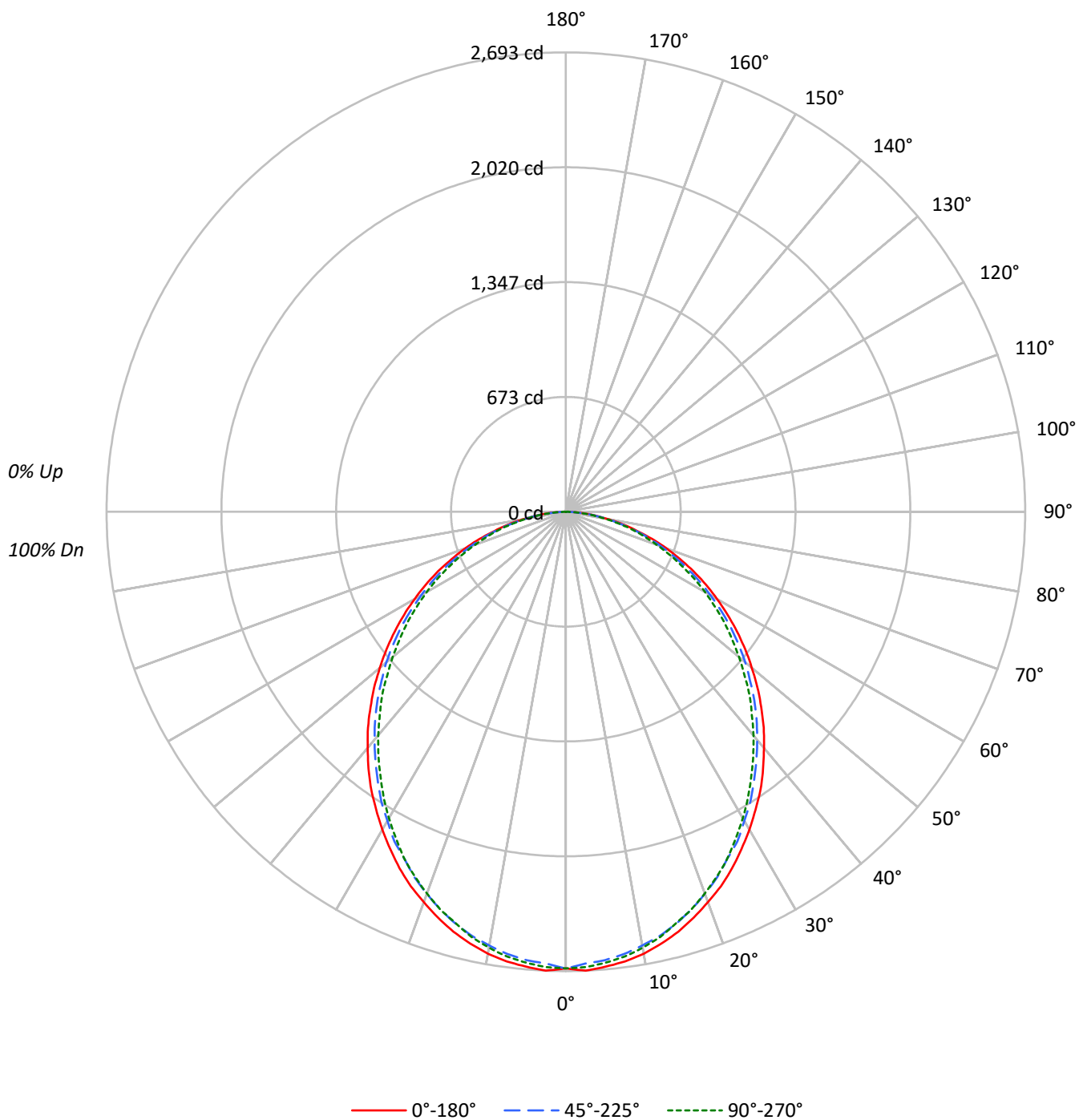
Lumens per Lamp: N/A
Luminaire Lumens: 6811.2 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 3.16' x L: 2.74' x H: 0')
CIE Type: Direct

Input Watts (W): 85.1
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9968
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	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°	3336	3336	3336
5°	3349	3301	3320
10°	3329	3267	3283
15°	3288	3225	3221
20°	3229	3161	3158
25°	3171	3083	3083
30°	3097	3011	2985
35°	3027	2925	2882
40°	2940	2839	2785
45°	2854	2753	2686
50°	2760	2665	2570
55°	2662	2562	2466
60°	2553	2438	2348
65°	2437	2315	2209
70°	2288	2166	2064
75°	2081	1995	1946
80°	1849	1792	1699
85°	1507	1437	1288

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2854 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.0	3.7
10°-20°	708.9	10.4
20°-30°	1041.8	15.3
30°-40°	1210.0	17.8
40°-50°	1208.5	17.7
50°-60°	1053.8	15.5
60°-70°	779.0	11.4
70°-80°	440.7	6.5
80°-90°	116.3	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°	2002.7	29.4
0°-40°	3212.8	47.2
0°-60°	5475.1	80.4
0°-90°	6811.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6811.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2677	2677	2677	2677	2677	
5°	2677	2667	2639	2659	2654	254
15°	2548	2533	2500	2510	2497	718
25°	2306	2286	2242	2247	2242	1061
35°	1990	1964	1923	1907	1895	1243
45°	1619	1601	1562	1534	1524	1250
55°	1225	1210	1179	1148	1135	1096
65°	826	811	785	762	749	817
75°	432	427	414	399	404	462
85°	105	103	100	93	90	124
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2677.0	2677.0	2677.0	2677.0	2677.0
2.5°	2692.6	2679.8	2651.4	2677.0	2672.1
5°	2677.0	2666.9	2638.6	2659.0	2654.1
7.5°	2659.0	2643.7	2615.3	2636.1	2630.9
10°	2630.9	2612.9	2582.0	2602.4	2594.9
12.5°	2592.1	2576.8	2545.9	2558.8	2553.6
15°	2548.4	2533.1	2499.5	2509.9	2497.1
17.5°	2494.3	2479.0	2445.4	2458.3	2445.4
20°	2435.1	2419.8	2383.7	2391.4	2381.3
22.5°	2376.1	2352.9	2319.2	2319.2	2314.1
25°	2306.4	2286.0	2242.3	2247.2	2242.3
27.5°	2229.1	2211.1	2177.8	2170.1	2157.3
30°	2152.2	2131.3	2092.9	2085.2	2074.8
32.5°	2069.7	2054.4	2013.1	1997.5	1987.2
35°	1989.9	1964.2	1923.0	1907.4	1894.6
37.5°	1899.7	1876.5	1835.3	1817.3	1804.5
40°	1807.2	1786.4	1745.2	1722.2	1711.8
42.5°	1717.1	1696.3	1655.3	1629.4	1614.1
45°	1619.3	1601.2	1562.4	1534.3	1524.0
47.5°	1524.0	1505.9	1464.7	1436.3	1421.0
50°	1423.5	1410.7	1374.5	1338.5	1325.7
52.5°	1325.7	1307.6	1274.3	1246.0	1227.9
55°	1225.4	1209.8	1179.1	1148.2	1135.3
57.5°	1125.0	1112.2	1078.5	1047.7	1037.2
60°	1024.4	1014.4	978.2	949.9	942.2
62.5°	926.6	908.7	883.0	857.3	846.9
65°	826.5	810.9	785.2	762.0	749.1
67.5°	723.4	710.4	687.4	669.4	659.0
70°	628.1	617.7	594.6	576.5	566.4
72.5°	530.4	520.0	507.1	489.2	481.5
75°	432.3	427.4	414.3	399.0	404.2
77.5°	344.9	334.5	329.4	321.7	314.1
80°	257.6	254.8	249.7	242.0	236.8
82.5°	175.1	175.1	172.6	162.2	162.2
85°	105.4	102.9	100.5	92.6	90.1
87.5°	46.4	41.3	36.0	28.4	25.7
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	15.47	17.08	15.83	17.39	17.71	15.02	16.63	15.39	16.95	17.26
	3H	17.22	18.67	17.60	19.00	19.36	16.73	18.18	17.10	18.51	18.87
	4H	17.86	19.23	18.26	19.58	19.96	17.37	18.74	17.77	19.09	19.46
	6H	18.33	19.60	18.74	19.97	20.36	17.83	19.10	18.24	19.47	19.86
	8H	18.48	19.69	18.90	20.08	20.48	17.97	19.18	18.40	19.57	19.97
	12H	18.57	19.73	19.00	20.11	20.54	18.05	19.21	18.48	19.60	20.03
4H	2H	16.03	17.40	16.43	17.75	18.12	15.68	17.05	16.07	17.39	17.77
	3H	18.00	19.15	18.41	19.55	19.95	17.60	18.74	18.01	19.14	19.54
	4H	18.78	19.82	19.21	20.23	20.67	18.36	19.39	18.79	19.81	20.24
	6H	19.38	20.28	19.83	20.72	21.18	18.94	19.85	19.40	20.29	20.75
	8H	19.57	20.41	20.03	20.86	21.32	19.13	19.97	19.59	20.42	20.88
	12H	19.70	20.46	20.18	20.93	21.40	19.25	20.01	19.73	20.48	20.95
8H	4H	19.05	19.90	19.51	20.34	20.81	18.68	19.53	19.14	19.97	20.43
	6H	19.77	20.47	20.26	20.96	21.43	19.39	20.09	19.88	20.58	21.05
	8H	20.03	20.66	20.54	21.16	21.65	19.64	20.27	20.15	20.77	21.26
	12H	20.23	20.78	20.73	21.28	21.84	19.81	20.37	20.32	20.86	21.42
12H	4H	19.08	19.84	19.56	20.32	20.78	18.71	19.47	19.20	19.95	20.42
	6H	19.81	20.45	20.32	20.95	21.44	19.44	20.08	19.95	20.58	21.07
	8H	20.13	20.69	20.63	21.18	21.74	19.75	20.31	20.26	20.80	21.36