

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P242619

Luminaire Tested: S124DRP-S575D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242619
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-S575D935-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

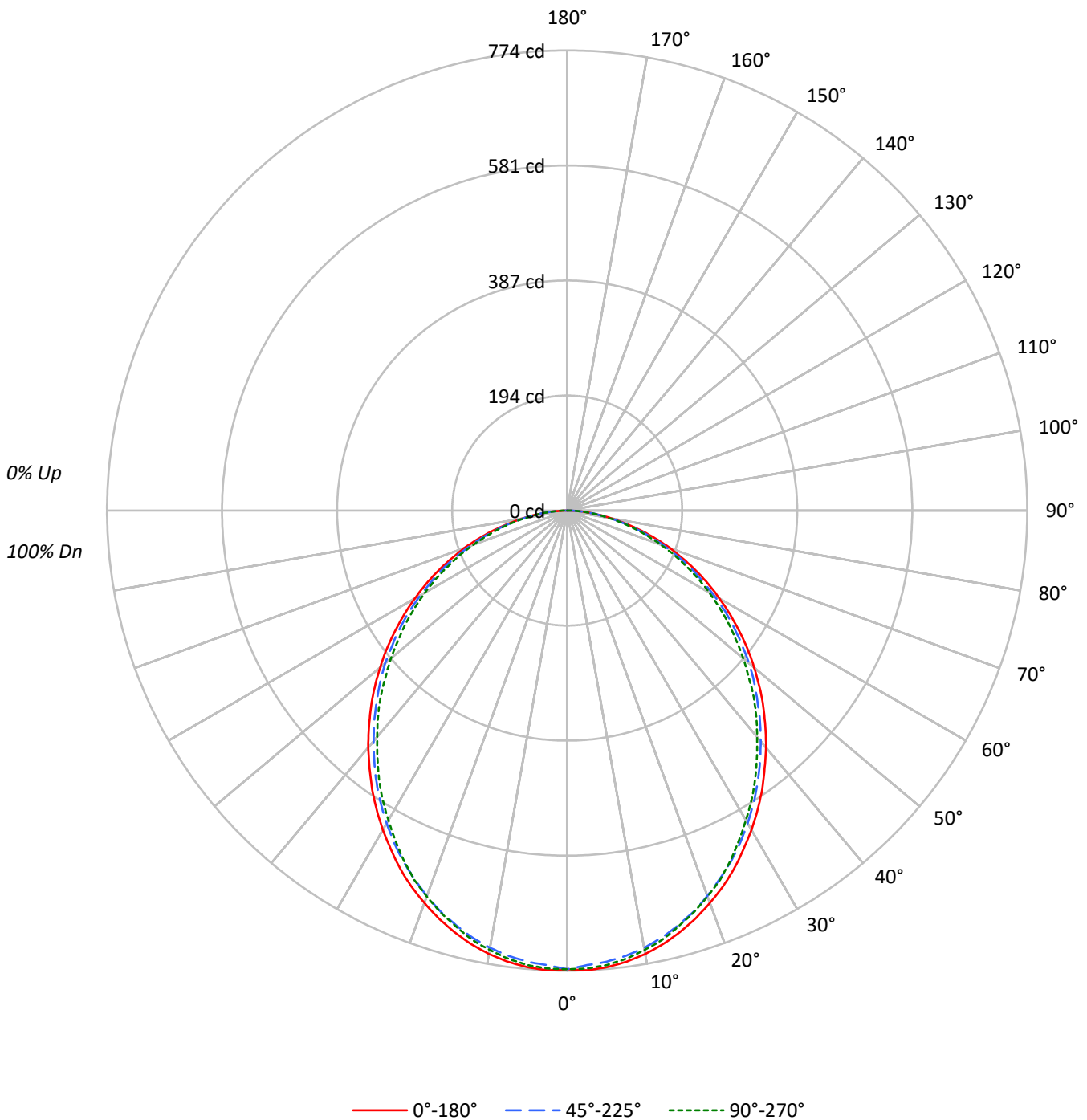
Lumens per Lamp: N/A
Luminaire Lumens: 1980.3 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
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									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																												
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70																												
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60																												
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51																												
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44																												
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39																												
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35																												
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31																												
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28																												
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6858	6858	6858
5°	6879	6796	6846
10°	6835	6741	6774
15°	6753	6645	6662
20°	6643	6526	6533
25°	6518	6391	6373
30°	6365	6231	6174
35°	6206	6065	5985
40°	6040	5875	5768
45°	5868	5688	5580
50°	5677	5523	5352
55°	5471	5308	5136
60°	5264	5067	4912
65°	5033	4838	4642
70°	4772	4530	4353
75°	4375	4163	4056
80°	3890	3737	3640
85°	3406	3274	3213

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5868 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	3.7
10°-20°	204.9	10.3
20°-30°	301.5	15.2
30°-40°	350.5	17.7
40°-50°	350.5	17.7
50°-60°	306.5	15.5
60°-70°	227.6	11.5
70°-80°	129.1	6.5
80°-90°	37.0	1.9
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°	579.1	29.2
0°-40°	929.6	46.9
0°-60°	1586.6	80.1
0°-90°	1980.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1980.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	772	772	772	772	772	
5°	771	768	762	768	767	73
15°	734	731	722	726	724	207
25°	665	660	652	652	650	306
35°	572	568	559	554	552	358
45°	467	462	452	446	444	360
55°	353	351	342	335	331	316
65°	239	236	230	224	221	237
75°	127	124	121	119	118	135
85°	33	33	32	32	32	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	771.5	771.5	771.5	771.5	771.5
2.5°	774.0	772.2	765.4	771.5	770.9
5°	770.9	768.4	761.6	768.4	767.2
7.5°	765.4	762.9	755.5	761.0	760.4
10°	757.3	754.8	746.8	751.8	750.5
12.5°	746.8	744.3	735.7	741.2	739.4
15°	733.8	731.4	722.1	725.8	723.9
17.5°	719.0	715.9	707.2	709.7	708.5
20°	702.3	699.2	689.9	691.8	690.6
22.5°	684.4	680.0	670.8	674.5	672.0
25°	664.6	660.3	651.6	652.2	649.8
27.5°	642.3	638.0	630.0	628.7	625.6
30°	620.1	615.1	607.1	604.6	601.5
32.5°	596.6	592.3	583.6	580.5	577.4
35°	571.9	567.5	558.9	554.5	551.5
37.5°	545.9	542.2	532.9	528.6	524.3
40°	520.5	515.6	506.3	500.1	497.1
42.5°	493.3	490.9	480.4	472.9	471.1
45°	466.8	462.4	452.5	445.7	443.9
47.5°	438.9	435.8	426.6	419.2	414.2
50°	410.5	408.0	399.4	390.7	387.0
52.5°	382.7	379.6	370.3	362.9	358.0
55°	353.0	351.1	342.5	335.1	331.4
57.5°	325.2	323.3	314.7	307.3	303.5
60°	296.1	293.0	285.0	279.4	276.3
62.5°	267.7	265.2	256.6	251.6	248.5
65°	239.3	236.2	230.0	223.8	220.7
67.5°	210.2	207.7	201.5	195.4	194.7
70°	183.6	179.3	174.3	169.4	167.5
72.5°	155.2	150.8	147.1	143.4	141.6
75°	127.4	124.3	121.2	118.7	118.1
77.5°	100.2	98.9	95.8	95.2	93.4
80°	76.0	74.2	73.0	71.7	71.1
82.5°	52.5	51.9	51.9	51.3	50.7
85°	33.4	33.4	32.1	32.1	31.5
87.5°	16.1	15.5	14.8	14.8	14.8
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	17.99	19.60	18.35	19.92	20.23	17.61	19.23	17.98	19.54	19.86
	3H	19.75	21.21	20.13	21.53	21.89	19.32	20.78	19.70	21.11	21.47
	4H	20.40	21.78	20.80	22.12	22.50	19.97	21.34	20.37	21.69	22.07
	6H	20.88	22.15	21.29	22.51	22.91	20.45	21.72	20.86	22.08	22.47
	8H	21.03	22.24	21.45	22.63	23.03	20.60	21.82	21.03	22.21	22.61
	12H	21.13	22.30	21.56	22.68	23.11	20.71	21.88	21.14	22.26	22.69
4H	2H	18.56	19.93	18.96	20.28	20.66	18.26	19.64	18.66	19.98	20.36
	3H	20.54	21.69	20.95	22.09	22.49	20.19	21.34	20.60	21.74	22.14
	4H	21.32	22.36	21.75	22.77	23.21	20.96	22.00	21.39	22.41	22.85
	6H	21.93	22.83	22.38	23.27	23.73	21.56	22.47	22.01	22.91	23.37
	8H	22.12	22.97	22.58	23.42	23.88	21.77	22.62	22.23	23.06	23.52
	12H	22.27	23.04	22.75	23.51	23.98	21.92	22.68	22.40	23.16	23.63
8H	4H	21.60	22.45	22.06	22.89	23.36	21.28	22.13	21.74	22.57	23.03
	6H	22.32	23.03	22.81	23.52	23.99	22.00	22.71	22.49	23.20	23.67
	8H	22.59	23.23	23.10	23.73	24.22	22.28	22.92	22.79	23.42	23.91
	12H	22.82	23.38	23.33	23.87	24.43	22.51	23.07	23.02	23.56	24.13
12H	4H	21.63	22.39	22.11	22.87	23.33	21.31	22.08	21.79	22.55	23.02
	6H	22.37	23.00	22.88	23.51	24.00	22.06	22.70	22.57	23.20	23.69
	8H	22.70	23.26	23.20	23.75	24.31	22.40	22.96	22.91	23.45	24.01