

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: P242614

Luminaire Tested: S124DRP-S575D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242614
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-S575D930-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

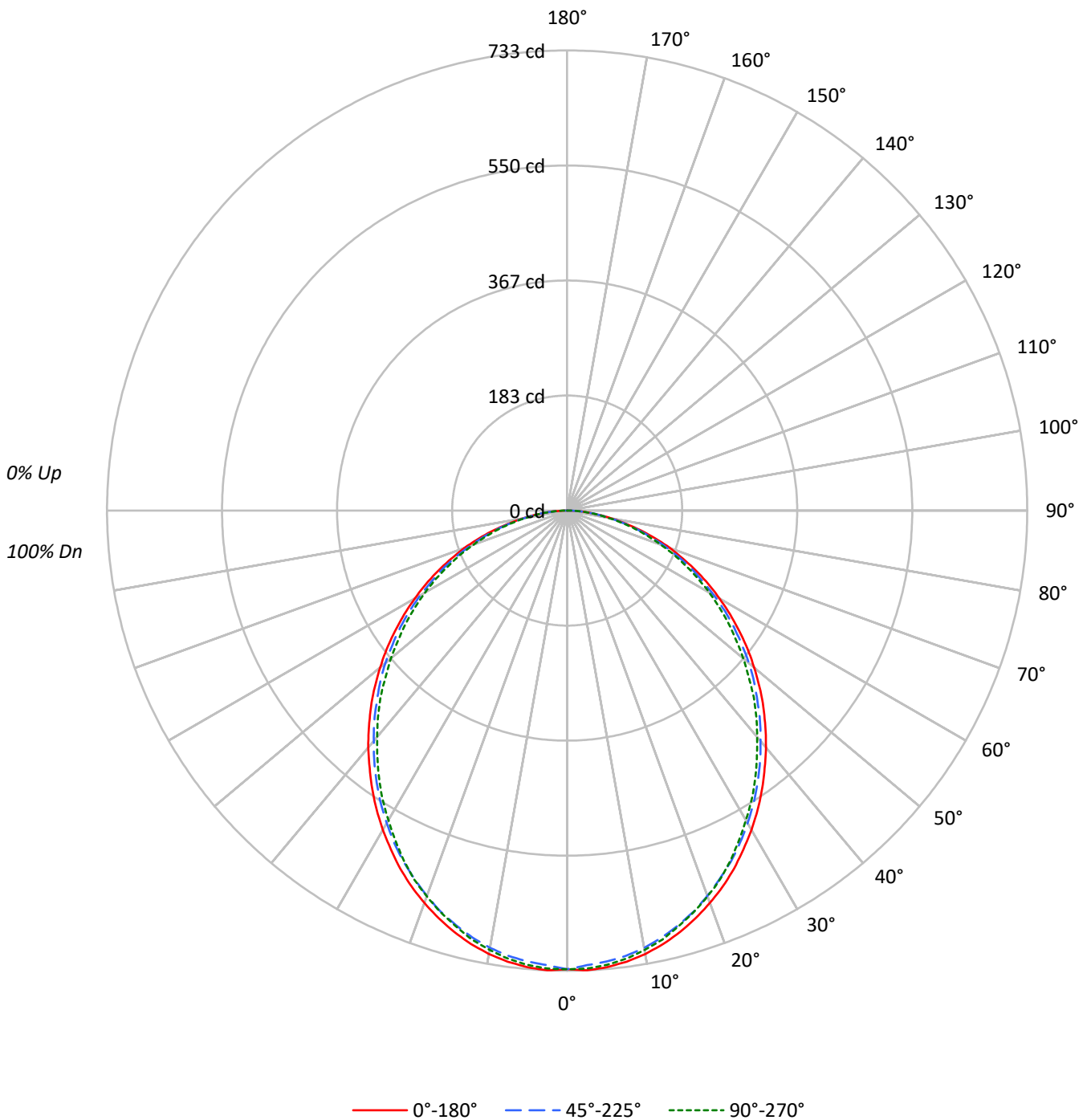
Lumens per Lamp: N/A
Luminaire Lumens: 1875.2 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6494	6494	6494
5°	6514	6435	6482
10°	6473	6383	6415
15°	6395	6293	6308
20°	6290	6180	6185
25°	6172	6051	6035
30°	6027	5901	5846
35°	5876	5743	5667
40°	5719	5563	5462
45°	5556	5387	5284
50°	5375	5230	5068
55°	5181	5026	4863
60°	4985	4798	4652
65°	4766	4581	4396
70°	4520	4291	4122
75°	4142	3939	3840
80°	3686	3537	3445
85°	3223	3100	3049

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5556 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.9	3.7
10°-20°	194.0	10.3
20°-30°	285.5	15.2
30°-40°	331.9	17.7
40°-50°	331.9	17.7
50°-60°	290.3	15.5
60°-70°	215.5	11.5
70°-80°	122.3	6.5
80°-90°	35.0	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°	548.4	29.2
0°-40°	880.3	46.9
0°-60°	1502.4	80.1
0°-90°	1875.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1875.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	731	731	731	731	731	
5°	730	728	721	728	726	69
15°	695	692	684	687	686	196
25°	629	625	617	618	615	290
35°	542	537	529	525	522	339
45°	442	438	428	422	420	341
55°	334	332	324	317	314	299
65°	227	224	218	212	209	224
75°	121	118	115	112	112	128
85°	32	32	30	30	30	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	730.6	730.6	730.6	730.6	730.6
2.5°	732.9	731.2	724.7	730.6	730.0
5°	730.0	727.7	721.2	727.7	726.5
7.5°	724.7	722.4	715.4	720.6	720.1
10°	717.1	714.8	707.2	711.9	710.7
12.5°	707.2	704.8	696.6	701.9	700.1
15°	694.9	692.5	683.8	687.3	685.5
17.5°	680.8	677.9	669.7	672.0	670.9
20°	665.0	662.1	653.3	655.1	653.9
22.5°	648.0	643.9	635.2	638.7	636.3
25°	629.3	625.2	617.0	617.6	615.3
27.5°	608.2	604.1	596.5	595.4	592.4
30°	587.2	582.5	574.9	572.5	569.6
32.5°	564.9	560.8	552.6	549.7	546.8
35°	541.5	537.4	529.2	525.1	522.2
37.5°	516.9	513.4	504.6	500.5	496.4
40°	492.9	488.2	479.4	473.6	470.7
42.5°	467.2	464.8	454.9	447.8	446.1
45°	442.0	437.9	428.5	422.1	420.3
47.5°	415.6	412.7	403.9	396.9	392.2
50°	388.7	386.4	378.2	370.0	366.5
52.5°	362.4	359.4	350.7	343.6	339.0
55°	334.3	332.5	324.3	317.3	313.8
57.5°	307.9	306.2	298.0	290.9	287.4
60°	280.4	277.5	269.9	264.6	261.7
62.5°	253.5	251.1	242.9	238.3	235.3
65°	226.6	223.6	217.8	211.9	209.0
67.5°	199.0	196.7	190.8	185.0	184.4
70°	173.9	169.8	165.1	160.4	158.6
72.5°	146.9	142.8	139.3	135.8	134.1
75°	120.6	117.7	114.7	112.4	111.8
77.5°	94.8	93.7	90.7	90.2	88.4
80°	72.0	70.2	69.1	67.9	67.3
82.5°	49.8	49.2	49.2	48.6	48.0
85°	31.6	31.6	30.4	30.4	29.9
87.5°	15.2	14.6	14.0	14.0	14.0
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	17.80	19.41	18.16	19.73	20.04	17.42	19.04	17.79	19.35	19.66
	3H	19.56	21.02	19.94	21.34	21.70	19.13	20.59	19.51	20.92	21.28
	4H	20.21	21.59	20.61	21.93	22.31	19.78	21.15	20.18	21.50	21.88
	6H	20.69	21.96	21.10	22.33	22.72	20.25	21.53	20.67	21.89	22.28
	8H	20.84	22.05	21.26	22.44	22.84	20.41	21.63	20.84	22.02	22.42
	12H	20.94	22.11	21.37	22.49	22.92	20.52	21.69	20.95	22.07	22.50
4H	2H	18.37	19.74	18.77	20.09	20.47	18.07	19.44	18.47	19.79	20.17
	3H	20.35	21.50	20.76	21.90	22.30	20.00	21.15	20.41	21.55	21.95
	4H	21.13	22.17	21.56	22.59	23.02	20.77	21.81	21.20	22.22	22.66
	6H	21.74	22.64	22.19	23.09	23.54	21.37	22.28	21.82	22.72	23.18
	8H	21.93	22.78	22.39	23.23	23.69	21.58	22.43	22.04	22.87	23.33
	12H	22.09	22.85	22.57	23.32	23.79	21.73	22.49	22.21	22.97	23.44
8H	4H	21.41	22.26	21.87	22.70	23.17	21.09	21.94	21.55	22.38	22.84
	6H	22.13	22.84	22.62	23.33	23.80	21.81	22.52	22.30	23.01	23.48
	8H	22.40	23.04	22.91	23.54	24.03	22.09	22.73	22.60	23.23	23.72
	12H	22.63	23.19	23.14	23.68	24.24	22.32	22.88	22.83	23.38	23.94
12H	4H	21.44	22.20	21.92	22.68	23.15	21.12	21.89	21.60	22.36	22.83
	6H	22.18	22.82	22.69	23.32	23.81	21.87	22.51	22.38	23.01	23.50
	8H	22.51	23.07	23.01	23.56	24.12	22.21	22.77	22.72	23.26	23.82