

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: P242864

Luminaire Tested: S125DRP-S375D940-X4F0-XX-UDD-D-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242864
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S375D940-X4F0-XX-UDD-D-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

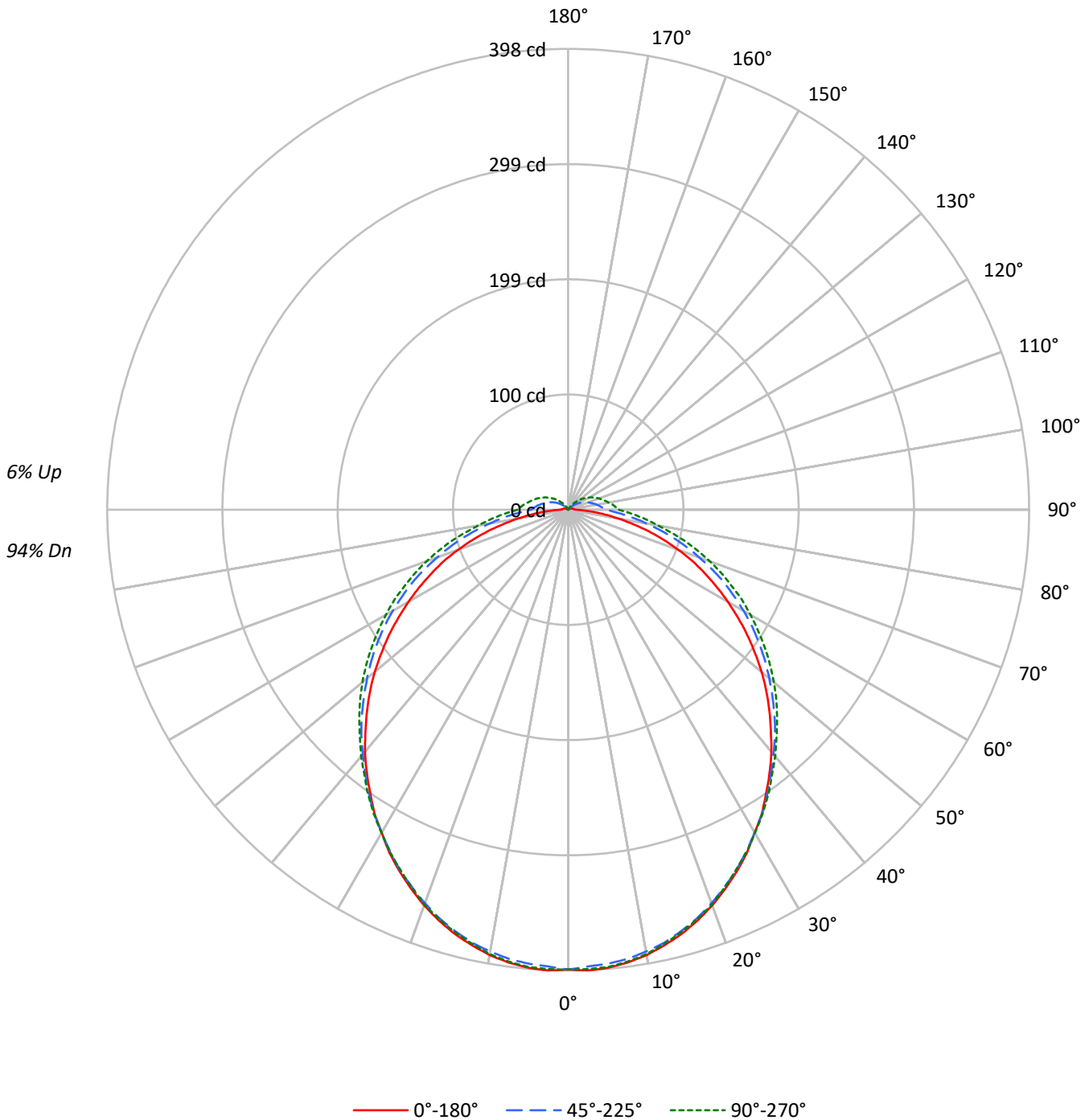
Lumens per Lamp: N/A
Luminaire Lumens: 1230.2 lumens
Efficiency: N/A
Efficacy: 106.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.39' x L: 3.88' x H: 0.08')
CIE Type: Direct

Input Watts (W): 11.6
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	0
RCR																		
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96	94
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79	76
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65	63
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55	53
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47	45
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41	39
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36	34
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32	30
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2822	2822	2822
5°	2828	2768	2776
10°	2808	2716	2711
15°	2774	2655	2629
20°	2729	2580	2547
25°	2676	2500	2447
30°	2610	2412	2356
35°	2549	2330	2272
40°	2487	2245	2188
45°	2418	2172	2113
50°	2350	2092	2045
55°	2270	2016	1967
60°	2182	1930	1887
65°	2090	1839	1797
70°	1986	1717	1704
75°	1820	1597	1590
80°	1605	1453	1464
85°	1401	1348	1414

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2418 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.6	3.1
10°-20°	106.7	8.7
20°-30°	158.6	12.9
30°-40°	187.9	15.3
40°-50°	194.2	15.8
50°-60°	178.9	14.5
60°-70°	144.6	11.8
70°-80°	96.8	7.9
80°-90°	50.0	4.1
90°-100°	28.2	2.3
100°-110°	20.8	1.7
110°-120°	13.9	1.1
120°-130°	7.9	0.6
130°-140°	3.4	0.3
140°-150°	0.7	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	302.9	24.6
0°-40°	490.8	39.9
0°-60°	863.9	70.2
0°-90°	1155.4	93.9
90°-120°	62.8	5.1
90°-150°	74.9	6.1
90°-180°	75.0	6.1
0°-180°	1230.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	397	397	397	397	397	
5°	397	396	394	397	396	38
15°	379	380	377	379	378	107
25°	345	346	343	345	343	159
35°	298	301	300	301	301	187
45°	246	250	252	255	255	190
55°	189	195	201	206	207	169
65°	130	139	148	154	156	129
75°	72	82	94	102	104	76
85°	21	34	48	56	60	22
90°	6	19	32	41	44	4
95°	5	15	28	37	40	4
105°	4	10	21	29	32	4
115°	2	5	15	22	24	2
125°	2	1	9	15	17	1
135°	1	0	3	8	10	1
145°	0	0	0	2	4	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	397.1	397.1	397.1	397.1	397.1
2.5°	398.3	397.5	394.8	397.5	397.1
5°	397.1	396.3	393.6	396.7	396.3
7.5°	394.4	394.0	391.3	394.0	393.6
10°	390.5	390.5	387.4	390.1	389.7
12.5°	385.1	385.4	383.1	385.1	383.9
15°	379.2	379.6	376.9	379.2	377.7
17.5°	371.8	372.6	369.9	371.8	370.7
20°	363.6	364.4	361.7	362.9	362.9
22.5°	354.3	355.9	352.7	354.3	353.1
25°	344.6	345.7	343.4	345.0	343.0
27.5°	334.1	335.6	332.9	334.1	333.3
30°	322.0	324.3	322.0	322.8	322.4
32.5°	311.1	313.0	311.5	312.3	311.9
35°	298.2	301.0	299.8	301.0	301.0
37.5°	285.8	288.1	287.7	289.3	288.9
40°	272.9	276.0	275.7	277.2	278.0
42.5°	258.9	263.2	264.4	266.3	266.3
45°	245.7	250.0	251.9	254.6	255.0
47.5°	232.0	235.9	239.1	242.9	243.7
50°	218.0	222.3	226.6	230.9	232.0
52.5°	203.2	208.7	214.1	218.8	219.6
55°	188.8	195.1	201.3	205.6	207.1
57.5°	174.0	181.4	188.4	193.1	194.3
60°	159.2	167.0	174.8	180.7	181.8
62.5°	144.8	152.6	161.2	167.8	169.4
65°	130.0	139.0	148.3	154.2	155.7
67.5°	116.4	125.0	134.3	141.3	143.3
70°	101.2	110.2	120.3	127.7	130.0
72.5°	86.4	95.8	107.1	115.2	116.8
75°	71.6	81.8	94.2	102.0	104.0
77.5°	57.2	68.9	80.6	89.2	90.7
80°	44.0	55.7	68.9	77.5	79.0
82.5°	31.9	44.4	58.0	66.2	69.3
85°	21.4	34.3	47.9	56.5	59.6
87.5°	13.6	26.1	39.3	48.3	51.0
90°	6.2	18.7	31.9	40.9	43.6
92.5°	5.5	16.7	30.4	38.9	41.7
95°	5.1	15.2	28.4	37.0	39.7
97.5°	4.7	14.0	26.9	35.0	37.8
100°	4.3	12.5	24.9	33.1	35.4
102.5°	3.9	11.3	23.4	31.1	33.5
105°	3.5	9.7	21.4	29.2	31.9
107.5°	3.1	8.6	19.9	27.6	30.0
110°	2.7	7.4	18.3	25.7	28.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	2.7	6.2	16.7	23.7	26.5
115°	2.3	5.1	15.2	22.2	24.5
117.5°	1.9	3.9	13.6	20.2	23.0
120°	1.9	3.1	12.1	18.7	21.0
122.5°	1.6	1.9	10.5	16.7	19.1
125°	1.6	1.2	9.0	15.2	17.1
127.5°	1.2	0.8	7.4	13.2	15.6
130°	1.2	0.8	6.2	11.7	13.6
132.5°	0.8	0.8	4.7	10.1	11.7
135°	0.8	0.4	3.1	8.2	10.1
137.5°	0.8	0.4	1.9	6.6	8.2
140°	0.4	0.4	0.8	5.1	6.6
142.5°	0.4	0.0	0.0	3.5	5.1
145°	0.4	0.0	0.0	1.9	3.5
147.5°	0.0	0.0	0.0	0.8	1.6
150°	0.0	0.0	0.0	0.0	0.4
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	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	13.52	15.05	13.98	15.49	15.96	14.57	16.10	15.02	16.54	17.00
	3H	15.17	16.57	15.64	17.02	17.52	16.74	18.14	17.21	18.59	19.09
	4H	15.74	17.06	16.23	17.53	18.05	17.71	19.02	18.20	19.49	20.01
	6H	16.12	17.35	16.63	17.83	18.36	18.60	19.83	19.11	20.31	20.85
	8H	16.23	17.40	16.74	17.90	18.44	19.04	20.21	19.55	20.71	21.26
	12H	16.29	17.41	16.81	17.91	18.48	19.50	20.62	20.02	21.12	21.69
4H	2H	14.28	15.60	14.78	16.07	16.59	15.10	16.42	15.59	16.88	17.40
	3H	16.16	17.28	16.67	17.79	18.33	17.49	18.61	18.00	19.12	19.66
	4H	16.87	17.89	17.39	18.41	18.98	18.60	19.62	19.13	20.15	20.72
	6H	17.37	18.27	17.92	18.82	19.41	19.67	20.57	20.21	21.12	21.71
	8H	17.53	18.37	18.08	18.92	19.52	20.19	21.03	20.74	21.58	22.18
	12H	17.63	18.39	18.20	18.97	19.57	20.75	21.51	21.32	22.09	22.69
8H	4H	17.35	18.19	17.90	18.74	19.34	18.86	19.71	19.41	20.26	20.86
	6H	18.01	18.72	18.60	19.31	19.92	20.09	20.79	20.67	21.39	22.00
	8H	18.25	18.89	18.85	19.50	20.12	20.72	21.36	21.32	21.97	22.59
	12H	18.43	19.00	19.03	19.59	20.28	21.44	22.01	22.03	22.60	23.29
12H	4H	17.45	18.21	18.02	18.79	19.40	18.88	19.64	19.45	20.22	20.83
	6H	18.18	18.82	18.77	19.42	20.04	20.14	20.77	20.73	21.38	22.00
	8H	18.49	19.06	19.09	19.65	20.34	20.84	21.41	21.44	22.00	22.69