

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: P242443

Luminaire Tested: S123DRP-S775D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242443
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-11)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DRP-S775D930-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

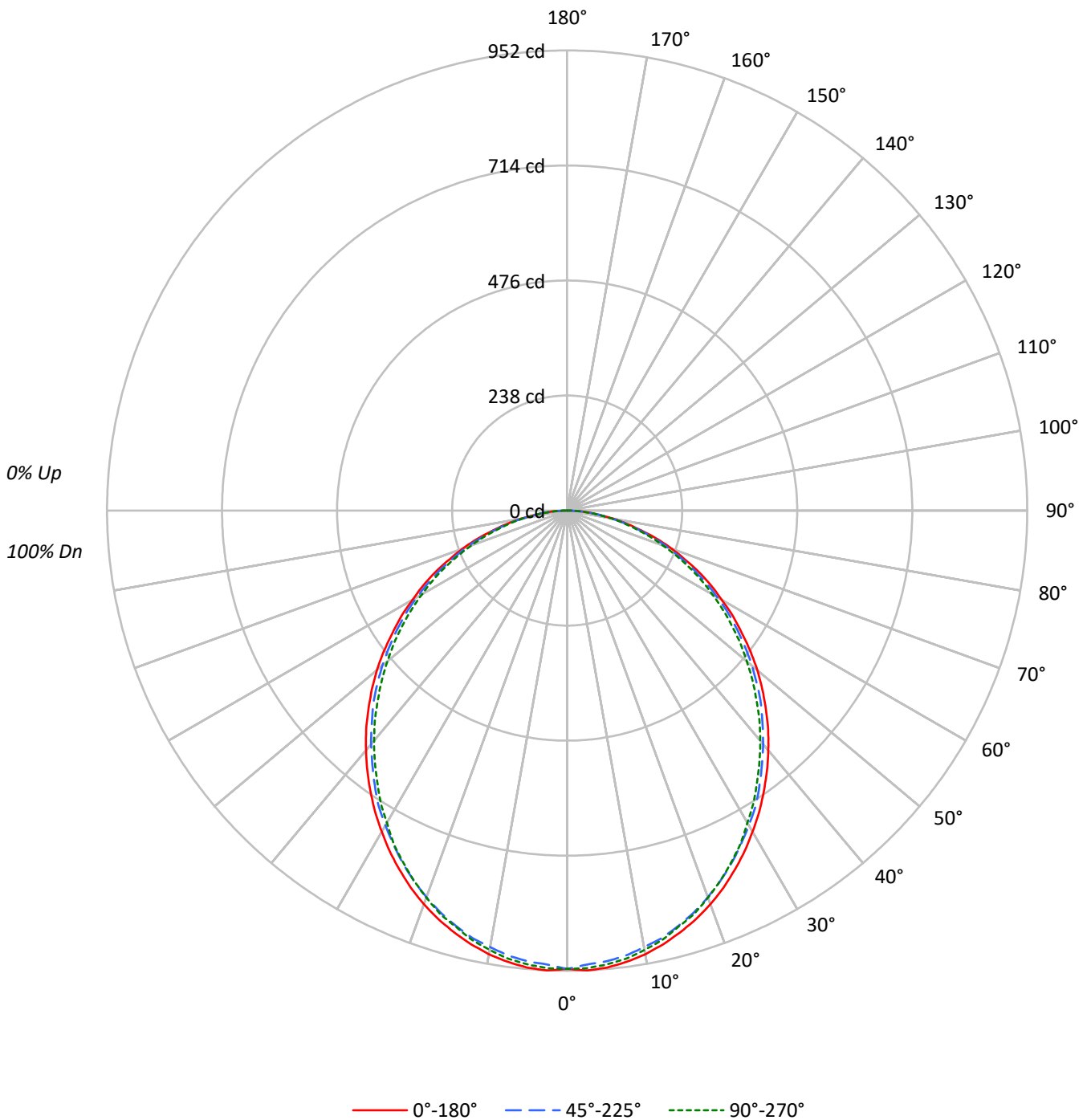
Lumens per Lamp: N/A
Luminaire Lumens: 2467.7 lumens
Efficiency: N/A
Efficacy: 93.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	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	94	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	72	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11493	11493	11493
5°	11547	11389	11468
10°	11470	11289	11359
15°	11337	11162	11182
20°	11180	10980	10990
25°	10970	10762	10741
30°	10738	10521	10441
35°	10496	10266	10135
40°	10242	9984	9831
45°	9965	9726	9490
50°	9685	9410	9148
55°	9322	9081	8804
60°	8953	8696	8419
65°	8627	8277	8019
70°	8148	7800	7453
75°	7446	7179	6875
80°	6715	6429	6373
85°	5897	5674	5438

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9965 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.4	3.6
10°-20°	252.4	10.2
20°-30°	372.8	15.1
30°-40°	435.4	17.6
40°-50°	437.7	17.7
50°-60°	384.5	15.6
60°-70°	286.3	11.6
70°-80°	163.0	6.6
80°-90°	46.3	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°	714.6	29.0
0°-40°	1149.9	46.6
0°-60°	1972.1	79.9
0°-90°	2467.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2467.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	948	948	948	948	948	
5°	949	945	936	944	942	90
15°	903	900	890	896	891	255
25°	820	815	805	806	803	378
35°	709	704	694	689	685	444
45°	581	578	567	558	554	449
55°	441	440	430	421	417	395
65°	301	297	289	282	280	297
75°	159	156	153	149	147	170
85°	42	41	41	39	39	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	948.2	948.2	948.2	948.2	948.2
2.5°	952.3	949.0	940.0	948.2	947.4
5°	949.0	944.9	936.0	944.1	942.5
7.5°	941.7	937.6	928.6	936.0	935.1
10°	931.9	927.8	917.2	924.5	922.9
12.5°	918.8	915.6	905.8	910.7	909.9
15°	903.4	900.1	889.5	896.0	891.1
17.5°	886.2	882.2	871.6	876.4	874.8
20°	866.7	861.8	851.2	854.4	852.0
22.5°	844.6	839.8	829.2	831.6	828.3
25°	820.2	815.3	804.7	805.5	803.1
27.5°	794.9	790.0	778.6	779.4	777.0
30°	767.2	763.1	751.7	751.7	746.0
32.5°	739.5	733.8	725.6	719.9	717.5
35°	709.3	704.4	693.8	688.9	684.9
37.5°	679.1	672.6	662.0	656.3	653.9
40°	647.3	642.5	631.0	624.5	621.3
42.5°	615.6	609.8	598.4	591.9	588.6
45°	581.3	578.0	567.4	557.7	553.6
47.5°	547.9	543.0	533.2	523.4	520.2
50°	513.6	509.6	499.0	490.0	485.1
52.5°	477.8	475.3	463.9	456.6	451.7
55°	441.1	440.3	429.7	420.7	416.6
57.5°	406.8	403.6	395.4	387.3	382.4
60°	369.3	368.5	358.7	351.4	347.3
62.5°	335.9	333.5	323.7	316.3	313.9
65°	300.8	296.8	288.6	282.1	279.6
67.5°	263.3	260.1	253.6	247.9	244.6
70°	229.9	225.0	220.1	214.4	210.3
72.5°	194.9	191.6	185.9	181.0	179.4
75°	159.0	155.7	153.3	149.2	146.8
77.5°	127.2	125.6	122.3	119.0	119.0
80°	96.2	93.8	92.1	91.3	91.3
82.5°	66.0	66.0	66.0	64.4	63.6
85°	42.4	40.8	40.8	39.1	39.1
87.5°	21.2	18.8	17.9	17.1	17.1
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	19.84	21.46	20.21	21.77	22.09	19.53	21.15	19.89	21.46	21.77
	3H	21.61	23.07	21.99	23.40	23.76	21.24	22.71	21.62	23.03	23.39
	4H	22.27	23.65	22.67	23.99	24.37	21.88	23.26	22.28	23.61	23.98
	6H	22.76	24.03	23.17	24.40	24.79	22.37	23.64	22.78	24.01	24.40
	8H	22.91	24.13	23.33	24.52	24.92	22.53	23.74	22.95	24.13	24.53
	12H	23.02	24.18	23.45	24.57	24.99	22.63	23.80	23.06	24.18	24.61
4H	2H	20.42	21.80	20.82	22.15	22.52	20.17	21.55	20.57	21.90	22.27
	3H	22.41	23.57	22.82	23.97	24.37	22.11	23.26	22.52	23.66	24.06
	4H	23.20	24.24	23.63	24.65	25.09	22.87	23.91	23.30	24.33	24.76
	6H	23.82	24.73	24.27	25.17	25.62	23.48	24.39	23.94	24.83	25.29
	8H	24.02	24.87	24.48	25.31	25.78	23.69	24.54	24.15	24.98	25.45
	12H	24.17	24.94	24.65	25.41	25.88	23.84	24.60	24.32	25.08	25.55
8H	4H	23.48	24.34	23.94	24.78	25.24	23.19	24.05	23.65	24.49	24.95
	6H	24.22	24.93	24.71	25.42	25.89	23.93	24.64	24.42	25.12	25.60
	8H	24.49	25.13	25.00	25.64	26.12	24.21	24.84	24.72	25.35	25.84
	12H	24.72	25.29	25.23	25.78	26.34	24.43	24.99	24.94	25.48	26.04
12H	4H	23.51	24.28	23.99	24.75	25.22	23.23	24.00	23.71	24.47	24.94
	6H	24.27	24.91	24.78	25.41	25.90	23.99	24.63	24.50	25.13	25.62
	8H	24.60	25.17	25.11	25.66	26.22	24.33	24.89	24.83	25.38	25.94