

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: NEO-RAY

Report Number: P242212

Luminaire Tested: **S121RDR-S685D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242212
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-23)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-S685D940-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1994.3 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

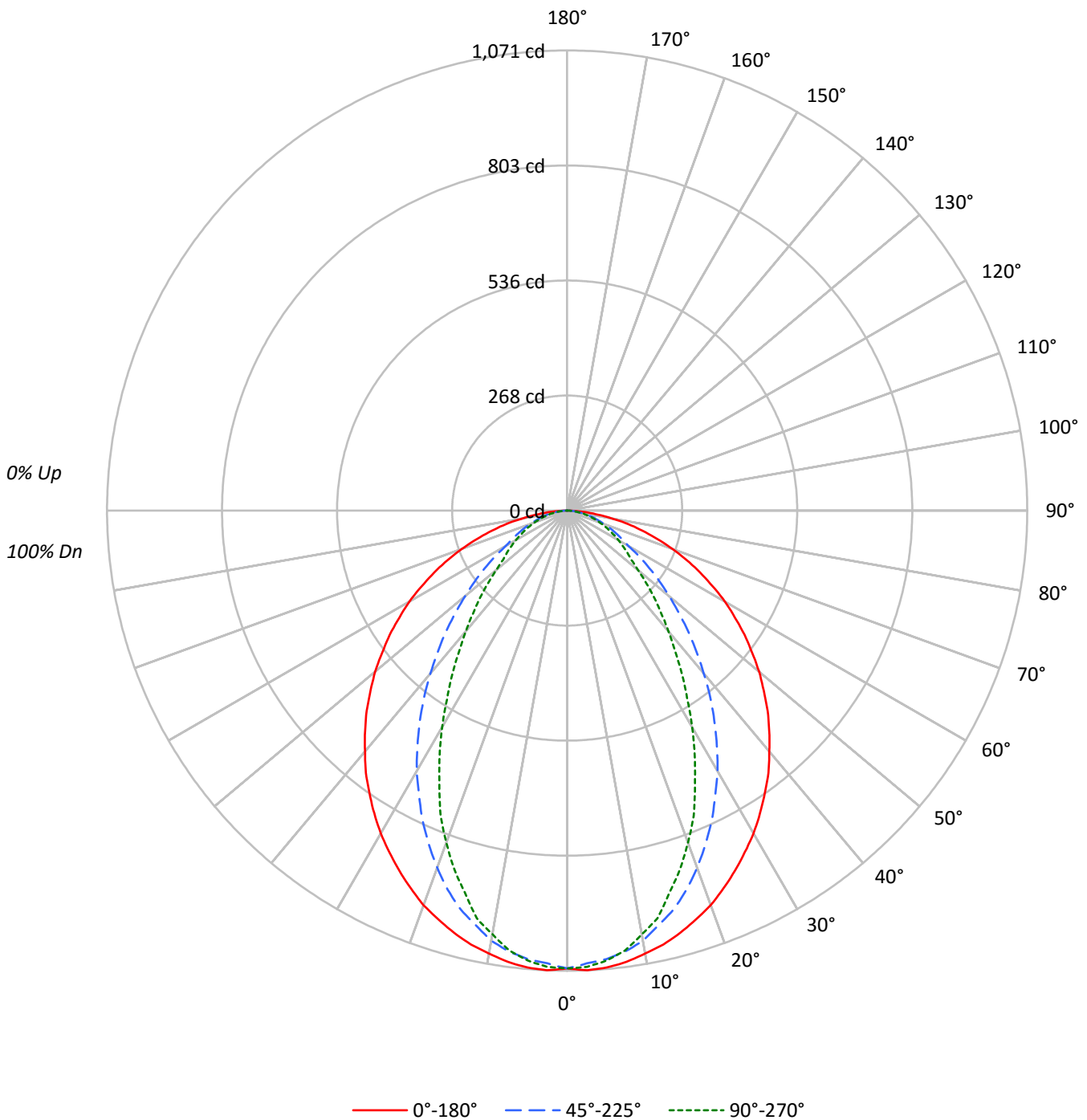
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75		
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	65	65	65	65	65		
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57	57	57	57	57	57	57		
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	50	50	50	50	50	50	50		
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45		
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40	40	40	40	40	40	40		
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37	37	37	37	37	37	37		
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33	33	33	33	33	33	33		
10	58	45	38	33	56	45	37	33	44	37	33	43	37	32	42	36	32	31	31	31	31	31	31	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	31573	31573	31573
5°	31748	31165	31269
10°	31498	30583	30129
15°	31209	29460	28227
20°	30816	27893	25925
25°	30231	26033	23003
30°	29684	23949	19922
35°	29027	21609	16870
40°	28317	19142	14211
45°	27652	16702	11993
50°	26883	14303	9906
55°	26025	12067	8844
60°	25156	9778	8190
65°	23943	8813	7565
70°	22559	7953	6957
75°	20721	7247	6434
80°	18104	6399	5784
85°	14856	5473	4861



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.8	5.0
10°-20°	271.3	13.6
20°-30°	370.3	18.6
30°-40°	384.9	19.3
40°-50°	336.3	16.9
50°-60°	254.2	12.7
60°-70°	167.9	8.4
70°-80°	86.6	4.3
80°-90°	23.0	1.2
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°	741.4	37.2
0°-40°	1126.3	56.5
0°-60°	1716.8	86.1
0°-90°	1994.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1994.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1066	1066	1066	1066	1066	
5°	1067	1061	1048	1056	1051	101
15°	1017	1002	960	935	920	287
25°	925	888	796	730	704	426
35°	802	731	597	499	466	502
45°	660	561	399	309	286	508
55°	504	382	234	178	171	450
65°	342	213	126	111	108	338
75°	181	84	63	58	56	193
85°	44	18	16	15	14	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1065.6	1065.6	1065.6	1065.6	1065.6
2.5°	1070.9	1065.6	1054.9	1064.7	1062.9
5°	1067.4	1061.1	1047.8	1055.8	1051.3
7.5°	1059.4	1052.2	1035.3	1038.0	1032.6
10°	1046.9	1038.8	1016.5	1012.1	1001.4
12.5°	1034.4	1021.9	987.1	978.2	972.0
15°	1017.4	1002.3	960.4	935.4	920.2
17.5°	997.8	977.3	924.7	890.8	874.8
20°	977.3	950.6	884.6	838.2	822.2
22.5°	951.5	920.2	840.9	785.6	769.5
25°	924.7	888.1	796.3	730.3	703.6
27.5°	896.2	851.6	746.4	672.3	642.9
30°	867.6	813.2	700.0	610.8	582.3
32.5°	835.5	774.9	648.3	554.6	520.8
35°	802.5	731.2	597.4	499.4	466.4
37.5°	769.5	691.1	546.6	447.6	412.9
40°	732.1	649.2	494.9	393.2	367.4
42.5°	696.4	605.5	445.9	351.3	323.7
45°	659.9	560.9	398.6	309.4	286.2
47.5°	620.6	517.2	352.2	272.9	249.7
50°	583.2	470.8	310.3	237.2	214.9
52.5°	542.2	427.1	271.1	200.6	188.2
55°	503.8	382.5	233.6	177.5	171.2
57.5°	462.8	339.7	198.9	160.5	153.4
60°	424.5	296.9	165.0	142.7	138.2
62.5°	381.7	255.9	143.6	126.6	122.2
65°	341.5	213.1	125.7	110.6	107.9
67.5°	301.4	176.6	108.8	96.3	93.6
70°	260.4	140.0	91.8	82.9	80.3
72.5°	220.3	107.0	76.7	69.6	67.8
75°	181.0	83.8	63.3	58.0	56.2
77.5°	146.2	64.2	49.9	45.5	44.6
80°	106.1	47.3	37.5	34.8	33.9
82.5°	72.2	32.1	26.8	25.0	23.2
85°	43.7	17.8	16.1	15.2	14.3
87.5°	17.8	8.0	7.1	6.2	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)